

FINAL ENVIRONMENTAL ASSESSMENT FOR  
LAND EXCHANGE AT  
DYESS AIR FORCE BASE  
TAYLOR COUNTY, TEXAS

Prepared for:



DYESS AIR FORCE BASE  
TAYLOR COUNTY, TEXAS

October 2011

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**FINDING OF NO SIGNIFICANT IMPACT  
AND  
FINDING OF NO PRACTICABLE ALTERNATIVE**

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**1. NAME OF THE PROPOSED ACTION**

Land Exchange at Dyess AFB, Taylor County, Texas

**2. DESCRIPTION PROPOSED ACTION AND ALTERNATIVES**

Dyess AFB proposes to exchange two parcels of unutilized land, Sites 1 and 2 totaling 20.13 acres, for two privately held parcels, Sites 3 and 4, totaling approximately 14.12 acres (Proposed Action). Site 1 is the 20-acre Communication Annex Transmitter Building 1001 (Transmitter Building) located on Farm to Market Road 707, approximately 600 feet from Dyess AFB's northwest fence line. Site 2 is the 0.13-acre Instrument Landing System (ILS) Middle Marker Annex 02 located approximately 2,500 feet beyond the north end of the runway. Sites 1 and 2 are not contiguous with the installation boundary. Site 3 (4.03 acres) and Site 4 (10.09 acres) are contiguous with the northwest portion of the installation boundary and are used for crop rotation, however are inactive at this time. See the Environmental Assessment (EA) Figure 1 for the Regional Map of Dyess AFB and Figure 2 for the Map of Proposed Action Site Locations. The EA is hereby incorporated by reference. Furthermore, Dyess AFB would acquire easements on an additional 21.9 acres of agricultural land adjacent to Sites 3 and 4.

The purpose of the Proposed Action is to acquire land adjacent to the airfield on the northwest boundary without an outlay of funds in order to allow Dyess AFB to comply with the current UFC requirements for a 1,000-foot runway lateral clearance zone. As a part of the Proposed Action, Dyess AFB would perform minor grading in order to establish grass on the newly acquired agricultural field and would move the perimeter fence so that it would encompass the newly acquired area and not obstruct the new runway lateral clearance zone.

Under the No-Action Alternative, Dyess AFB would not dispose of Sites 1 and 2 and would not acquire Sites 3 and 4. Therefore, the airfield would continue to be configured based on outmoded standards and would not conform to the current UFC requirements for a 1,000-foot runway lateral clearance zone.

One alternative considered was to purchase the adjacent property (Sites 3 and 4) needed to expand the runway lateral clearance zone and an easement needed to establish height restrictions for the Transitional Zone. Because the private landowners agreed to exchange Sites 3 and 4, and allow Dyess AFB to establish height restrictions for the Transitional Zone easement, in return for the unutilized land at Sites 1 and 2, this alternative was not carried forward for further study. Purchasing the additional property would not meet the purpose and need because it would require an outlay of funds.

An Environmental Baseline Survey (EBS) was conducted for each site. Site 1 was classified as Category 2; Site 2 was classified as Category 1; Site 3 and 4 were classified as Category 3. These classifications do not require further action. The executive summary of each EBS is included in **Appendix C** of the EA.

### **3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES**

The public and agency scoping process focused the analysis on the following environmental resources: Air Quality; Air Space; Floodplains; Land Use; Safety and Occupational Health; Socioeconomic and Environmental Justice; Soils; Threatened and Endangered Species; Utilities; and Water Resources. Of the property that Dyess AFB would acquire, approximately 2.4 acres in Site 4 is located within a floodplain. Since the existing fence (which is currently in a floodplain) would be an obstruction to the new runway lateral clearance zone, it must be moved; therefore, a Finding of No Practicable Alternative (FONPA) is required. Special attention was given to resources that are regulated by the Endangered Species Act or the National Historic Preservation Act. The EA identified no significant impacts for any resource area. Details of the environmental consequences can be found in Section 3 of the EA. Page ES-ii in the Executive Summary presents a summary of the analyses.

Public notice of availability of the approved Draft EA was issued through the Abilene Reporter-News on September 18, 2011, which sponsors both the Abilene Reporter-News (Local Newspaper) and the Sound of Freedom (Base Newspaper). The Draft EA was sent to the Abilene Public Library, which was used as an off-base review location. No comments were received during the 30-day comment period.

### **4. CONCLUSION**

**Finding of No Significant Impact:** Based on the information and analysis presented in the EA conducted in accordance with the requirements of the National Environmental Policy Act, the Council on Environmental Quality Regulations, and implementing regulations set forth in 32 CFR 989 (Environmental Impact Analysis Process), as amended, and review of the public and agency comments submitted during the 30-day public comment period, I conclude that implementation of the proposed action would not result in significant impacts to the quality of the human or natural environment. For these reasons, a finding of no significant impact is made and preparation of an Environmental Impact Statement (EIS) is not warranted.

**Finding of No Practicable Alternative:** Pursuant to Executive Order 11988 and the authority delegated by Secretary of the Air Force Order 791.1, and taking into account the information above as well as the analysis presented in the EA which is incorporated by reference, I find that there is no practicable alternative to this action and that the Proposed Action includes all practicable measures to minimize harm to the environment.

3/23/2012

X 

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GARY D. CHESLEY, Colonel, USAF  
Deputy Director, Installations and Mission Sup...

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### **Privacy Advisory for Draft EA**

Public comments on this Draft EA are requested pursuant to the National Environmental Policy Act, 42 United States Code 4321, *et seq.* All written comments received during the comment period will be made available to the public and considered during Final EA preparation. The provision of private address information with your comment is voluntary. However, this information is used to compile the mailing list for Final EA distribution and failure to provide such information will result in your name not being included on the list. Private address information will not be released for any other purpose unless required by law.



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## **EXECUTIVE SUMMARY**

### **Introduction**

Dyess Air Force Base (AFB) in Taylor County Texas operates a Class B runway. Under the current Department of Defense (DoD) Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, a 1,000-foot runway lateral clearance zone is required for Class B runways. Because the airfield was established under previous standards, the northeast portion of the airfield complies with the current 1,000-foot runway lateral clearance zone; however, the northwest portion of the airfield is currently operating with a 750-foot runway lateral clearance zone.

The purpose of the Proposed Action is to acquire land adjacent to the airfield on the northwest boundary without an outlay of funds in order to allow Dyess AFB to comply with the current UFC requirements for a 1,000-foot runway lateral clearance zone.

This Environmental Assessment (EA) documents the potential environmental impacts resulting from implementing the Proposed Action.

### **Description of Proposed Action and No-Action Alternative**

Dyess AFB proposes to exchange two parcels of unutilized land, Sites 1 and 2 totaling 20.13 acres, for two privately held parcels, Sites 3 and 4, totaling approximately 14.12 acres (Proposed Action). Site 1 is the 20-acre parcel used for the Communication Annex Transmitter Building 1001 (Transmitter Building) located on Farm to Market Road 707, approximately 600 feet beyond the Dyess AFB's northwest fence line. Site 2 is the 0.13-acre parcel used for the Instrument Landing System (ILS) Middle Marker Annex 02 located approximately 2,500 feet beyond the north end of the runway. Sites 1 and 2 are not contiguous with the installation boundary and no demolition of structures or other changes to the existing condition would occur at these sites prior to transfer into private ownership. Site 3 (4.03 acres) and Site 4 (10.09 acres) are contiguous with the northwest portion of the installation boundary and are used for crop rotation, however are inactive at this time. Furthermore, Dyess AFB would acquire easements on an additional 21.9 acres of agricultural land adjacent to Sites 3 and 4 to prevent obstacles near the Primary Surface from penetrating the 7H:1V transitional surfaces slope, which is required under the current UFC. The ground surface below the transitional surfaces slope will be referred to as the Transitional Zone throughout the rest of this document.

As a part of the Proposed Action, Dyess AFB would perform minor grading in order to establish grass on the newly acquired agricultural field and would move the perimeter fence so that it would encompass the newly acquired area and not obstruct the new runway lateral clearance zone.

Under the No-Action Alternative, Dyess AFB would not dispose of Sites 1 and 2 and would not acquire Sites 3 and 4. Therefore, the airfield would continue to be configured based on outmoded standards and would not conform to the current UFC requirements for a 1,000-foot runway lateral clearance zone.

## Summary of Environmental Impacts

The following resources were not analyzed in the EA as they would not be impacted by the Proposed Action: airfield operations, cultural resources; geology; hazardous materials and wastes; noise; wastewater; and wetlands.

Special attention was given to resources that are regulated by the Endangered Species Act or the National Historic Preservation Act. No significant impacts were identified for any resource area. Table ES-1 presents a comparison of the environmental effects of the Proposed Action and the No-Action Alternative.

**Table ES-1 Summary of Potential Impacts**

Affected Environment	Proposed Action	No-Action Alternative
Air Quality	<b>No Significant Impact</b> Future fugitive dust emissions from agricultural soil disturbances would no longer occur on Sites 3 and 4. The Proposed Action would not cause an exceedence of deminimus levels and a formal conformity determination is not required.	No change would occur.
	<b>No Significant Impact (Temporarily Negative)</b> Although it is unclear how Sites 1 and 2 will be privately developed, standard practices of wetting disturbed soils will ensure that fugitive dust emissions are minimal. Temporary impacts to air quality may occur at Sites 3 and 4, during grading activities, due to fugitive dust and increased emissions from construction equipment. Appropriate construction best management practices (BMPs) would be maintained to reduce impact to air quality during construction.	
Airspace	<b>No Significant Impact (Positive)</b> Would increase amount of airspace designated for runway lateral clearance zone, thereby attaining conformance with the current UFC.	No Significant Impact (Negative) Dyess AFB would remain out of conformance with the current UFC.
Floodplains	<b>No Significant Impact (Positive)</b> Of the property that Dyess AFB would acquire, approximately 2.4 acres in Site 4 is located a floodplain. Since the existing fence (which is currently in a floodplain) would be an obstruction to the new runway lateral clearance zone, it must be moved; therefore, a Finding of No Practicable Alternative (FONPA) is required. The realignment of the perimeter fence reduces the length of existing fence within the floodplain by 200 linear feet. The floodplain's ability to function will not be affected by this action.	No change would occur.

Affected Environment	Proposed Action	No-Action Alternative
Hazardous materials and wastes	<p><b>No Significant Impact</b></p> <p>The Transmitter Building on Site 1 was constructed prior to 1980. This building contains asbestos containing materials (ACM) in pipe insulation and caulking and may contain lead based paint. The ACM would be abated prior to transfer or this information would be disclosed to the private property owner prior to transfer. The potential presence of LBP would be disclosed to the private property owner prior to transfer.</p> <p>No new hazardous materials or wastes are proposed.</p>	No change would occur.
Land Use (AICUZ and Noise Zones)	<p><b>No Significant Change</b></p> <p>Site 1 is located within the 70-74 db DNL and the 75-79 dB DNL noise zones. Site 2 is located within the APZ I, the 80+ dB DNL noise zone and the Transitional Surface. Future development of Sites 1 and 2 by private land owners would be in compliance with proposed deed restrictions.</p> <p>Site 3 and 4 are located within the 75-79 dB DNL and the 80+ dB DNL noise zone. Sites 3 and 4 would be developed by Dyess AFB in compliance with current AICUZ and Noise Zone classifications.</p>	No change would occur.
Land Use (Local Use)	<p><b>No Significant Impact</b></p> <p>The Proposed Action will change the land use of Sites 1 and 2 from federal to private use; Sites 3 and 4 from private use (prime farmland) to federal use (non-agricultural).</p> <p>Future uses would be limited to those in compliance with proposed deed restrictions.</p> <p>The conversion of prime farmland to non-agricultural use would not significantly affect the overall production of agricultural products in the city of Tye. No significant affect on land use or agricultural production would occur as a result of the Proposed Action.</p>	No change would occur.
Safety and Occupational Health	<p><b>No Significant Impact (Positive)</b></p> <p>Increased runway lateral clearance zone and transitional zone easements would improve overall safety for airfield and flight personnel.</p>	No Significant Impact (Negative) The runway lateral clearance zone and height restrictions for the transitional Zones would not be increased; therefore, safety for airfield and flight personnel would remain unchanged.
Socioeconomic Resources and Environmental Justice	<p><b>No Significant Impact</b></p> <p>Development of Site 1 could provide short to long-term economic benefit to the surrounding area. Allowing Site 2 to be incorporated into an adjacent property could have positive effect on property values.</p> <p>Sites 3 and 4 would no longer be used for agricultural purposes.</p>	No change would occur.

Affected Environment	Proposed Action	No-Action Alternative
Soils	<p><b>No Significant Impact (Positive)</b> Minor surface disturbance of the agricultural field would occur on Sites 3 and 4 (short-term). No future soil disturbances from agricultural activities would occur (long-term).</p>	No change would occur.
Threatened & Endangered (T&E) Species	<p><b>No Significant Impact (Temporarily Negative)</b> Due to the current and historic disturbed conditions of the Proposed Action sites, it is unlikely that the realignment of the fence and establishment of grasses would cause a significant change in the current conditions. Construction crews would be instructed on how to recognize the THL and would be required to contact Dyess AFB Natural Resources, should one be found during grading and planting of the site, so that an authorized biologist can safely relocate the animal. No federally listed threatened and endangered species are known to occur on Dyess AFB; therefore, no further concurrence from USFWS is necessary to implement the Proposed Action.</p>	No change would occur.
Utilities	<p><b>No Change</b> While an underground pipeline is located on Sites 3 and 4, the pipeline or other surrounding utilities would not be affected by the proposed shallow surface disturbance.</p>	No change would occur.
Water Resources	<p><b>No Significant Impact</b> Provided construction BMPs are followed, such as implementation of sediment controls along the perimeter of the disturbed area, project timing during periods of low rainfall expectations, and quickly re-establishing vegetation, the consequences of the Proposed Action to surface water, stormwater and other water resources would not be significant.</p>	No change would occur.

## Mitigation Measures

The evaluation of resources, which have the potential to be impacted by the Proposed Action, did not have a significant adverse result; therefore, no mitigation measures would be needed for the implementation of the Proposed Action.

## Conclusion

Because the Proposed Action would require the perimeter chain link fence that is located within a floodplain, to be moved so that it would not obstruct the new runway lateral clearance zone, a Finding of No Practicable Alternative (FONPA) has been prepared to accompany this EA. Based upon the findings of this EA, the implementation of the Proposed Action would not have a significant adverse impact on the quality of the environment, either human or natural, in the local or regional area.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

ACC	Air Combat Command
AAB	Army Air Base
AF	Air Force
AFB	Air Force Base
AFCEE	Air Force Center for Engineering and the Environment
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zone
ATMOS	Atmos Pipeline and Storage, LLC
BMP	Best Management Practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CIP	Capital Improvement Program
CWA	Clean Water Act
CO	carbon monoxide
DoD	Department of Defense
EA	Environmental Assessment
EBS	Environmental Baseline Survey
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FONSI	Finding of No Significant Impact
FONPA	Finding of No Practicable Alternative
FPPA	Farmland Protection Policy Act
ILS	Instrument Landing System
INRMP	Integrated Natural Resources Management Plan
LF	linear feet
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO <sub>2</sub>	nitrogen dioxide
NOR	Notice of Registration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O <sub>3</sub>	ozone
Pb	lead
PM <sub>10</sub>	particulate matter less than 10 micrometers
SHPO	State Historic Preservation Office
SIP	State Implementation Plan

SO <sub>2</sub>	sulfur dioxide
T&E	Threatened and Endangered Species
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historic Commission
THL	Texas horned lizard
TPDES	Texas Pollutant Discharge Elimination System
Transmitter Building	Communication Annex Transmitter Building 1001
UFC	Unified Facilities Criteria
UHF	Ultra High Frequency
USC	United States Code
USGS	United States Geological Survey
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
VHF	Very High Frequency
VOCs	Volatile Organic Compounds
WSS	Web Soil Survey

## **1 PURPOSE AND NEED FOR PROPOSED ACTION**

### **1.1 Introduction**

This Environmental Assessment (EA) examines the potential impacts to the natural and human environment resulting from a proposed land exchange at Dyess Air Force Base (AFB) in Taylor County, Texas.

Dyess AFB was established in Texas in the early 1940s as Abilene Army Air Base (AAB). The name of the base was changed to Dyess AFB in 1956 and is currently operated by the Air Combat Command (ACC). Dyess AFB is home to the 7<sup>th</sup> Bomb Wing which operates B-1B bombers and the only B-1B bomber combat crew training squadron. Dyess AFB is also home to one combat squadron, a weapons school and a B-1B bomber test and evaluation squadron. The primary tenant at Dyess AFB is the 317<sup>th</sup> Airlift Group (of Air Mobility Command) that operates two squadrons of C-130H and C-130 J aircraft in support of airlift requirements worldwide.

Dyess AFB encompasses approximately 6,400 acres of land and is located in the western portion of the city of Abilene, and in the eastern portion of the city of Tye, Texas. All parcels in the land exchange are located near the northwest portion of Dyess AFB. **Figure 1** presents a Regional Map of Dyess AFB. **Figure 2** presents a map of Proposed Action Site Locations.

### **1.2 Purpose and Need**

The purpose of the Proposed Action is to acquire land adjacent to the airfield on the northwest boundary without an outlay of funds in order to allow Dyess AFB to comply with the current UFC requirements for a 1,000-foot runway lateral clearance zone.

Compliance with airfield planning and design criteria is essential to the overall safety of AF personnel and neighboring communities. In accordance with the Department of Defense (DoD) Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, Dyess AFB must identify the compliance status of features and facilities on the airfield and bring non-compliant facilities into compliance when re-built or modified. The runway lateral clearance zone defined in Table 3-2 of the UFC as follows:

The runway lateral clearance zone's lateral limits coincide with the limits of the primary surface. The ends of the lateral clearance zone coincide with the runway ends. The ground surface within this area must be clear of fixed or mobile objects, and graded to the requirements of Table 3-2, items 13 and 14. The zone width is measured perpendicularly from the centerline of the runway and begins at the runway centerline.

Since Dyess AFB airfield is a Class B runway, a 1,000-foot runway lateral clearance zone is required. This clearance zone coincides with the primary surface, which is an “imaginary surface” defined by the Federal Aviation Administration (FAA) in 14 CFR Part 77. Both the runway lateral clearance zone and the primary surface must be kept clear of fixed or mobile obstacles. The primary surface is connected to the inner horizontal surface, which is 150 feet above the runway elevation, by a transitional surface which rises at a slope of 7H:1V. (DoD, 2008) **Appendix A** contains excerpts from the UFC depicting the runway lateral clearance

zone and the 7H:1V transitional surface slope configuration.

### **1.3 Interagency and Intergovernmental Coordination of Environmental Planning (IICEP)**

IICEP letters requesting comments on possible issues of concern were sent to agencies with pertinent resource responsibilities. See **Appendix B** for the letters sent to relevant agencies and comments received during review period.

### **1.4 Environmental Review Process**

This EA has been conducted in accordance with the President's Council on Environmental Quality (CEQ) regulations, Title 40 of the Code of Federal Regulations (CFR) §1500-1508, as they implement the requirements of the National Environmental Policy Act (NEPA), 42 United States Code (USC) §4321, *et seq.*, and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process (EIAP)*, as promulgated in 32 CFR Part 989. 32 CFR 989 addresses implementation of NEPA and directs Air Force (AF) officials to consider environmental consequences as part of the planning and decision making process. These regulations require federal agencies to analyze the potential environmental impacts of the Proposed Action and No-Action Alternatives and to use these analyses in making decisions on a proposed action. Cumulative effects of other ongoing activities also must be assessed in combination with the Proposed Action. The CEQ (CFR1508.9), instituted to oversee federal policy in this process, declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary and facilitate preparation of an EIS when necessary.

Section 5.2 contains a list of statutes, regulations and Executive Orders (EO) that are applicable to the Proposed Action and reasonably foreseeable cumulative actions.

The scoping process also assists Dyess AFB in determining the scope of issues to be addressed and helps identify significant environmental issues to be analyzed in depth. The purpose of this process is to de-emphasize insignificant issues and focus the scope of the environmental analysis on significant issues. The Proposed Action was discussed with the affected private landowners and Tye's Director of Operations.

Two permanent impacts were discovered relevant to the Proposed Action or the No-Action Alternative during the scoping process. First, there would be a change in land use and second, negligible impacts would occur to the floodplain, which lies within Site 4. Detailed analysis was performed in order to determine if additional resources would be affected permanently, or temporarily; and the extent of the impacts and any design features or mitigation actions that should be implemented in order to minimize the impacts.

#### **1.4.1 Relevant Environmental Documents**

Environmental documents relevant to the Proposed Action include a Phase 1 Environmental

Baseline Survey (EBS) conducted at each of the Sites. The EBSs were conducted to document the environmental conditions of the properties associated with the Land Exchange and the executive summaries are included in **Appendix C**.

Other relevant documents include the Dyess AFB Integrated Natural Resource Management Plan (INRMP), finalized in 2011. The goal of Air Force natural resources stewardship is to manage all aspects of the resource base in such a way that multiple uses, whether for mission training, commercial production, outdoor recreation, aesthetics, or preservation, are compatible with each other and the long-term sustainability and health of the ecosystem in which these activities occur (Dyess AFB 2010). The INRMP is focused on supporting the base mission requirements while complying with the Sikes Act (SA), Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Clean Water Act (CWA), federal natural resource conservation laws and regulation, and various Executive Orders including Executive Order (EO) 11988 Floodplains Management, EO 11990 Protection of Wetlands, EO 13186 Responsibilities of Federal Agencies to Protect Migratory Birds, EO 12962 Recreational Fisheries, and EO 13112 Invasive Species). The USFWS concurred with the AF determination of "No Affect" on endangered species for the Dyess AFB INRMP, which is hereby incorporated by reference.

#### **1.4.1.1 Compliance and Permitting**

To comply with NEPA, the planning and decision-making process for the Proposed Action by federal agencies involves a study of relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. NEPA addresses them collectively in the form of an EA or EIS, which provides the decision-maker with a comprehensive view of major environmental issues and requirements associated with the Proposed Action.

This section describes the environmental permitting and agency coordination that would be necessary for the implementation of the Proposed Action and the No-Action Alternative. As the proponent, Dyess AFB would be responsible for obtaining or overseeing the acquisition of all required permits and ensuring compliance with all conditions contained within the permits.

#### **1.4.1.2 National Pollutant Discharge Elimination System (NPDES)**

The U.S. Environmental Protection Agency (EPA) has established the NPDES program for construction sites, in order to reduce the level and type of pollutants frequently carried away from construction sites as stormwater flows across disturbed areas. The Clean Water Act (CWA), as amended in 1972, provides the statutory basis for the NPDES permit program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States. The AFI on Water Quality Compliance (AFI 32-7041) further identifies and defines the AF standards and protocols necessary to attain and sustain compliance with the CWA.

In Texas, the NDPEs program is carried out by Texas Commission on Environmental Quality (TCEQ) as the Texas Pollutant Discharge Elimination System (TPDES). Under the existing Construction General Permit (CGP) TXR150000, issued March 5, 2008, construction activities from which runoff goes into or adjacent to any surface water in the state are regulated according to the area of land disturbed. Large construction activities that disturb five or more acres, or are part of a larger common plan of development that will disturb five or more acres, are regulated

under this general permit.

This CGP requires that all appropriate construction best management practices (BMP) that eliminate or reduce pollutant discharge into stormwater be implemented and maintained to the maximum extent practicable.

Since the Proposed Action would include ground-disturbing activities of greater than one acre, a Notice of Registration (NOR) with the TPDES program must be submitted prior to any ground disturbing activities. This NOR would also require the development and implementation of a Storm Water Pollution Prevention Plan, which would describe the construction BMP that would reduce or eliminate the potential for the discharge of any construction related pollutant which may be carried away from the site during a rainfall event.

#### **1.4.1.3 State Historic Preservation Office (SHPO) and Texas Historical Commission (THC)**

Concurrence has been received from SHPO and THC that no known cultural resources or historic properties would be affected by the Proposed Action. See **Appendix D** for the concurrence letter.

#### **1.4.1.4 UFC Compliance**

Compliance with the UFC airfield clearance zones, described in Section 1.2, should be achieved in the most expedient and practical manner. The Proposed Action would allow Dyess AFB to conform to the current UFC requirements for airfield operations in this area. The No-Action Alternative would maintain the status quo, which would result in Dyess AFB not conforming to the current UFC guidelines for airfield operations in this area.

#### **1.4.1.5 Farmland Protection Policy Act (FPPA)**

The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that, to the extent possible, Federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland.

Since the agricultural area involved in the Proposed Action is considered prime farmland by the Natural Resources Conservation Service (NRCS), a consistency determination would be needed prior to implementation of the Proposed Action.

## **2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**

### **2.1 Selection Criteria**

The Proposed Action and Alternatives must be consistent with the overall mission of Dyess AFB, meet the project's stated purpose and need, and minimize impacts to the natural and human environment. The selection criteria for determining which alternatives to carry forward for further study are as follows:

Purpose and Need – (a) The project should allow Dyess AFB to acquire property along the boundary of the airfield that would allow full conformance with current airfield runway lateral clearance zone criteria as stated in the UFC. (b) The project must not include an outlay of funds.

Additional Project Objectives - (a) The project must allow Dyess AFB to acquire height restrictions for the Transitional Zone. (b) The project must provide a direct benefit to Dyess AFB.

Operational Compliance – Must avoid impacts to mission critical operations such as airfield and range activities.

Technical Feasibility – Considerations include compliance with federal, AF, state and local laws governing real estate transactions.

Environmental Compliance (Natural and Cultural Resources) – Impacts to natural resources such as floodplains, wetlands, water bodies, and threatened and endangered (T&E) species and habitats as well as cultural resources, such as historical structures and archaeologically significant areas, must be avoided or minimized to the maximum extent practicable. Unavoidable impacts must be addressed according to federal, AF, state, and local regulations.

### **2.2 Alternatives Carried Forward for Further Study**

During the scoping process, Dyess AFB was unable to identify reasonable alternatives other than the Proposed Action and the No-Action Alternative to carry forward for further study.

#### **2.2.1 Alternative A (Proposed Action)**

Dyess AFB proposes to exchange two parcels of unutilized land, Sites 1 and 2 totaling 20.13 acres, for two privately held parcels, Sites 3 and 4, totaling approximately 14.12 acres (Proposed Action). Site 1 is a 20-acre parcel formerly used for the Communication Annex Transmitter Building 1001 (Transmitter Building). The Transmitter Building is located on Farm to Market Road 707 approximately 600 feet northwest the Dyess AFB's fence line in Tye, Texas. Constructed in 1957 and decommissioned in 1998; the Transmitter Building consists of a reinforced concrete foundation, concrete walls, with a wood framed built-up tar and gravel roof. The purpose of the transmitter was to provide Ultra High Frequency (UHF) and Very High Frequency (VHF) transmitting capability for the control of military and civilian aircraft arriving and departing Dyess AFB and Abilene Regional Airport. The 20-acre area surrounding the

building is a fenced, open field not used for farming or industry. **Figure 3** presents an Aerial Map of Proposed Action Site 1.

Site 2 is a 0.13-acre parcel formerly used for the Instrument Landing System (ILS) Middle Marker Annex 02. The Middle Marker is located approximately 2,500 feet from the north perimeter fence directly inline with the runway center line. Annexed in 1958, the Middle Marker was a solid state ILS constructed in 1977 and utilized until 1999. The property currently consists of several concrete footings and several discarded utility poles. A chain link with protective barbed wire lining the top fence surrounds the property. **Figure 4** presents an Aerial Map of Proposed Action Site 2.

Two privately owned parcels of land are located within 1,000 feet of the runway centerline and are contiguous with the northwest portion of the installation boundary. These parcels are used for crop rotation, however are inactive at this time. Site 3 is a 4.03-acre parcel along the east portion of a 22.53-acre privately owned northern parcel. Dyess AFB would acquire Site 3 by through a fee-simple land exchange. In addition, Dyess AFB would acquire an easement for the Transitional Zone on the adjoining 6.16 acres to the west. The Proposed Action would not affect the remaining 12.34-acre portion of this parcel.

Site 4 is a 10.09-acre parcel along the east portion of a 70.43-acre privately southern parcel. Dyess AFB would acquire Site 4 by through a fee-simple land exchange. In addition, Dyess AFB would acquire an easement for the Transitional Zone on the adjoining 21.90 acres to the west. The Proposed Action would not affect the remaining 44.6-acre portion of this parcel.

The value of the exchange is favorable to Dyess AFB because it allows the airfield to comply with the current UFC requirements. Dyess AFB would not realize a monetary gain or loss from the Proposed Action.

**Figure 5** presents an Aerial Map of Proposed Action Sites 3 and 4. **Figure 6** presents an Aerial Map of Proposed Changes for Sites 3 and 4. **Appendix E** contains the land survey for Sites 3 and 4.

#### **2.2.2 Alternative B (No-Action Alternative)**

Under the No-Action Alternative, Dyess AFB would not dispose of Sites 1 and 2 and would not acquire Sites 3 and 4. Therefore, the airfield would continue to be configured based on outmoded standards and would not conform to the current UFC requirements for a 1,000-foot runway lateral clearance zone. Dyess AFB would continue to expend resources to maintain Sites 1 and 2 in their current unutilized state, which offers no benefit to Dyess AFB or to the surrounding community.

### **2.3 Alternatives Considered but Eliminated from Further Study**

One alternative considered was to purchase the adjacent property (Sites 3 and 4) needed to expand the runway lateral clearance zone and establish height restrictions for the Transitional Zone easement. This alternative was not carried forward for further study since the private landowners agreed to exchange Sites 3 and 4, and allow Dyess AFB to establish height restrictions for the Transitional Zone easement, in return for the unutilized land at Sites 1 and 2. Purchasing the additional property would not meet the purpose and need identified in Section 1 because it would require an outlay of funds.

## **3 AFFECTED ENVIRONMENTS AND CONSEQUENCES**

### **3.1 Analysis Approach**

NEPA requires the identification and description of the existing condition of the natural and human environments that have the potential to be affected by the Proposed Action or the No-Action Alternative. NEPA also indicates that the level of description provided should be proportional to the importance of the resource and the level of potential impact to that resource. The level of description and analysis provided in this EA reflects the simple nature of Proposed Action. The natural environment includes biological resources; cultural and historical resources; forestry and vegetation; surface and storm water; and soils and geology. The human environment includes air quality; environmental restoration areas; hazardous materials and wastes; health and safety. The human environment also includes local community issues such as socioeconomic and environmental justice; land use and aesthetics; transportation; and utilities. This chapter identifies and describes those human and natural environments that have the potential to be affected by the Proposed Action and the No-Action Alternative.

Within the scope of NEPA review, project-related impacts are classified based on changes to the existing environment. Whether an action significantly affects the quality of a resource is determined by considering the context in which it occurs, along with the intensity of the action. The context of an action is determined by studying the potential region of influence of the project. Significance varies depending on the physical setting of an alternative action. The intensity of an action refers to the severity of the impacts, both regionally and locally. (NEPA, 40 CFR 1508.27) Three levels of impact can be identified:

- No Impact – No impact is predicted;
- No Significant Impact – An impact is predicted, but the impact does not meet the intensity/context significance criteria for the specified resource; or
- Significant Impact – An impact is predicted that meets the intensity/context significance criteria for the specified resource.

### **3.2 Affected Environments**

Sections 3.3 – 3.10 include descriptions of the current conditions, followed by a description of the anticipated consequences as a result of implementing the Proposed Action and the No-Action Alternative.

#### **3.2.1 Environments Not Affected**

Under the NEPA, analysis of environmental conditions should address only those areas and environmental resources with the potential to be affected by the Proposed Action, No-Action Alternative or other identified alternatives. Locations and resources with no potential to be affected need not be analyzed. (CEQ 32 CFR 1502.15) Environments that would not be affected have been identified and are presented in Table 3-1, along with a reason for why they would not be affected.

**Table 3-1**  
**Summary of Environments Not Affected By the Proposed Action or No-Action Alternative**

<b>Environment</b>	<b>Reason Not Affected</b>
Air Field Operations	No changes to airfield operations would occur under the Proposed Action or the No-Action Alternative.
Cultural Resources	There are no known cultural resources located within the Proposed Action area. The No-Action Alternative would not affect Cultural Resources.
Geology	Since only minor surface grading would occur in the Proposed Action, no geological resources would be affected. The No-Action Alternative would not affect geological resources.
Noise	The four parcels of property to be exchanged are within the noise contours described in Dyess AFB's Air Installation Compatible Use Zone (AICUZ) Study. The Proposed Action would have no impact on noise in the area. The No-Action Alternative would have no affect on noise.
Wastewater	No wastewater generator or treatment facility is located within the Proposed Action sites. No new wastewater generators or treatment facilities are proposed. The No-Action Alternative would not affect wastewater.
Wetlands	No wetlands are currently located within any of the sites of the Proposed Action. No new wetland areas are proposed. The No-Action Alternative would not affect wetland resources.

### 3.2.2 Potentially Affected Environments

Environments that have the potential to be affected by the Proposed Action are primarily related to Sites 3 and 4 and are described in detail in the following sections. A comparison of the environmental effects of the Proposed Action and the No-Action Alternative is presented in Table 3-2 at the end of Section 3.

### 3.3 Air Quality

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. The significance of the pollution concentration is determined by comparing it to the federal and state ambient air quality standards. The Clean Air Act (CAA) and its subsequent amendments established the National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: ozone ( $O_3$ ) (the precursors of which are volatile organic compounds [VOCs]), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ ), sulfur dioxide ( $SO_2$ ), particulate matter less than 10 microns ( $PM_{10}$ ), and lead (Pb). These standards represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, with a

reasonable margin of safety. The state of Texas has adopted these standards.

Based on measured ambient criteria pollutant data, the EPA designates all areas of the U.S. as having air quality better than (attainment) or worse than the NAAQS (non-attainment). An area that is currently in attainment but was formerly a non-attainment area is termed a maintenance area. An area is often designated as unclassified when there is insufficient ambient criteria pollutant data for EPA to form a basis for attainment status. Unclassified areas are typically rural or remote, with few sources of air pollution.

The CAA requires each state to develop a State Implementation Plan (SIP), which is its primary mechanism for ensuring that the NAAQS are achieved and maintained within the state. According to plans outlined in the SIP, designated state and local agencies implement regulations to control sources of criteria pollutants. The CAA provides that federal action in non-attainment and maintenance areas must not hinder future attainment within the NAAQS and must conform to the applicable SIP. There are no specific requirements for federal actions in unclassified or attainment areas. However, all federal actions must comply with state and local regulations.

The criteria used to determine the significance of increased air emissions are based on federal, state, and local air pollution standards and regulations. The emissions would be considered significant if they (1) increase ambient pollutant concentrations above the applicable NAAQS, (2) contribute to an existing violation of the NAAQS, or (3) result in nonconformance with the CAA or SIP.

The TCEQ has determined, Dyess AFB is in an area that is currently unclassified or in attainment of the NAAQS for all six criteria air pollutants.

### **3.3.1 No-Action Alternative**

Under the No-Action Alternative, there would be no changes to the current air emissions at Dyess AFB.

### **3.3.2 Proposed Action**

Under the Proposed Action, temporary impacts to air quality may occur during construction due to fugitive dust and short term increased emissions from construction equipment. Appropriate construction BMPs, such as wetting disturbed soil surfaces, would be implemented and maintained to reduce impacts to air quality during construction. Sites 3 and 4 would no longer be subject to soil disturbances related to agricultural activities, therefore fugitive dust emissions from those activities would no longer occur. The Proposed Action would not cause an exceedence of deminimus levels and a formal conformity determination is not required; therefore, there would be no significant affect to air quality.

## **3.4 Airspace**

As described in detail in Section 1.2, Dyess AFB is currently operating with a runway lateral clearance zone that does not conform to the UFC current standard. In accordance with UFC 3-260-01, Dyess AFB must identify the compliance status of features and facilities on the airfield and bring non-compliant facilities into compliance when re-built or modified.

#### **3.4.1 No-Action Alternative**

The No-Action Alternative would have no effect on airspace in the area; however, it would not allow Dyess AFB to conform to current UFC regarding the 1,000-foot runway lateral clearance zone. The No-Action Alternative would be considered detrimental to conformance with current airspace requirements.

#### **3.4.2 Proposed Action**

The Proposed Action would affect airspace configurations by increasing the amount of airspace designated for the runway lateral clearance zone; however, this affect is not considered significant. This increase would not conflict with any other environments; however, it would allow Dyess AFB to conform to current UFC regarding the 1,000-foot runway lateral clearance zone.

Under the Proposed Action, Dyess AFB would encourage future development of Sites 1 and 2 by private landowners to be in compliance with current AICUZ guidelines. Sites 3 and 4 would be developed by Dyess AFB in compliance with current AICUZ guidelines and Noise Zone classifications. Under this alternative, Dyess AFB would be able to conform to current airspace requirements, which would be considered an insignificant positive affect.

### **3.5 Floodplains**

Floodplains are those normally dry, low-lying and relatively flat areas near water bodies or wetlands that are subject to at least a one percent or greater chance of flooding in any given year. Alterations to floodplains are subject to Executive Order (EO) 11988, Floodplain Management. The purpose of this EO is to avoid, to the extent possible, long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

Prior to any construction activity in a floodplain, the proponent must first prepare a Finding of No Practicable Alternative (FONPA), in accordance with 32 CFR 989.15, which documents there are no practicable alternatives to the action, and that the Proposed Action includes all practicable measures to minimize impacts to floodplains. In preparing the FONPA, the AF must consider the full range of practicable alternatives that would meet the proposed mission requirements. The Proposed Action must include all practicable measures to minimize impacts to floodplains.

Dyess AFB has identified a 100-year floodplain that extends into the southwestern portion of Site 4. **Figure 7** presents a United States Geological Survey (USGS) topographic map overlain with the floodplain areas that are associated with manmade ditches along the western side of the airfield that eventually drains to Little Elm Creek. This floodplain affects approximately 2.43 acres in the southern portion of Site 4. At this time, approximately 800 LF of perimeter fence and roadways are located within this flood plain.

#### **3.5.1 No Action Alternative**

Under the No-Action Alternative, the existing 800 LF of perimeter fence would remain in the floodplain. No change would be expected to the current conditions.

### **3.5.2 Proposed Action**

Since the existing fence (which is currently in a floodplain) would be an obstruction to the new runway lateral clearance zone, it must be moved; therefore, a Finding of No Practicable Alternative (FONPA) is required. The realignment of the perimeter fence reduces the length of existing fence within the floodplain by 200 linear feet (LF) below the current 800 LF. As a part of the Proposed Action, the newly acquired area will be minimally graded to prepare the area for establishing grass. The perimeter road would remain unchanged. The consequences of the Proposed Action would have no significant effect on the function of the floodplain's ability to store excessive rainfall.

Under the Proposed Action, there will be no significant affect on floodplains.

### **3.6 Hazardous Waste and Materials**

A survey was conducted in 1994 in order to determine the presence of asbestos containing materials (ACM). This survey revealed ACMs were present in pipe elbows, pipe insulation, floor tile and mastic, window caulking, duct connectors, and texturizer. EBSs were conducted for all Sites 1 and 2 in 2009 and Sites 3 and 4 in 2008. Each site was classified based on existing conditions. The classification descriptions are presented in Table 3-1.

**Table 3-1 EBS Site Classifications**

<b>Site</b>	<b>Classification Description</b>	<b>Rationale</b>
Site 1	Category 2 – Areas where only storage has occurred. Property where hazardous or petroleum products or their derivatives were stored, but no release, disposal or migration from adjacent areas occurred.	Assumes that all asbestos-containing materials and lead-based paint will be appropriately evaluated and abated whereas deemed necessary.
Site 2	Category 1 – Areas where no storage, release, or disposal has occurred. Property where no hazardous substances or petroleum products or their derivatives were stored, released into the environment or structure, or disposed on the subject property and where no migration from adjacent areas has occurred.	No storage, release, or disposal has occurred.
Sites 3 and 4	Category 3 – Areas where contamination is below level that requires any action. Property where contamination is present but falls below established action levels. For AF controlled property, base this conclusion on a characterization pursuant to the ERP.	Assumed routine use of agricultural chemicals.

Any building constructed prior to 1980 is classified as containing presumed asbestos containing material (PACM) per Occupational Safety and Health Administration (OSHA), 29 CFR Part 1910.1001. The facility at Site 1 site was constructed prior to 1980; therefore, the facility was

classified as having presumed asbestos-containing material (PACM) and lead-based paint (LBP). The EBS conducted in 2008 by Dyess AFB concluded that there would be no known environmental risks associated with the transfer of Site 1 to private ownership on the follow conditions. First, that an asbestos survey would be conducted and all asbestos containing materials would be properly abated prior to demolition. Second, that LBP sampling is required; if present, abatement would be required prior to scraping or removal of the LBP. No action would be necessary if no scraping or removal would occur prior to demolition of the structure. The EBS classified this site as Category 2. Subsequent site visits, conducted by Dyess AFB personnel on July 26, 2011 have confirmed that all ACM, had been removed, except for the window caulking, and pipe insulation. At the time of the most recent site visit, the pipe insulation was exposed and the caulking was in poor condition. Flooring mastic was not present.

No buildings were ever constructed on Site 2 and no hazardous materials were stored on the property; therefore, the EBS classified this site as Category 1. Sites 3 and 4 been used as farmland for the last 60 years, it has to be assumed that landowners in the past have used herbicides, pesticides and chemical fertilizers on these sites; therefore, the EBS classified this site as Category 3. No further action is required prior to transferring ownership of Sites 2, 3 and 4.

### **3.6.1    No-Action Alternative**

Under the No-Action Alternative, there would be no direct impacts anticipated to hazardous waste or materials.

### **3.6.2    Proposed Action**

Prior to transfer to private ownership, either the AF would disclose the presence of ACM or an asbestos survey would be conducted and all friable ACM would be properly abated prior to transfer to private ownership. Furthermore the potential presence of (LBP) would be disclosed, along with the need for sampling and if present, the requirements for abatement prior to scraping or removal. No action is necessary if no scraping or removal will occur prior demolition of the structure.

## **3.7      Land Use**

### **3.7.1    Local**

Land use adjacent properties the Proposed Action was considered during the scoping process. Significant changes, which would affect the current land use of the area within and near the Proposed Action, should be carefully considered prior to decision-making.

Major land uses near the Proposed Action include single-family residential, agricultural and commercial activities. While Sites 1 and 2 have been unutilized for at least ten years, they have historically been used as support for Dyess AFB operations. (See Section 1.5 for details.) Sites 3 and 4 are listed with the NRCS as prime farmland and are used for crop rotation; however, the sites are inactive at this time. Sites 3 and 4 would no longer be used for agricultural production.

The threshold of impact would be reached when the overall production of agricultural products were diminished to the point that supply could not keep pace with demand or if the land use changes would limit the ability of current or future landowners to utilize property in the project

area.

#### **3.7.1.1 No-Action Alternative**

Under the No-Action Alternative, there would be no direct impacts anticipated to land use or agricultural production.

#### **3.7.1.2 Proposed Action**

Under the Proposed Action, ownership of Sites 1 and 2 would be permanently withdrawn from Dyess AFB support operations and transferred to private citizens. The Proposed Action would convert Sites 3 and 4 to a mowed grassy area. This area would become part of the runway lateral clearance zone. Through additional easements, the Proposed Action would include the implementation of height restrictions for the Transitional Zone on portions of the agricultural parcels adjacent to Sites 3 and 4.

The change of land use of Sites 3 and 4 from agricultural to non-agricultural would not alter the ability of current or future neighboring landowners to utilize their property. The conversion of Sites 3 and 4's prime farmland to non-agricultural uses would not significantly affect the overall production of agricultural products in the city of Tye. Therefore, no significant affect on land use or agricultural production would occur as a result of the Proposed Action.

#### **3.7.2 AICUZ and Noise Zones**

Site 1 is located within the 70-74 db DNL and the 75-79 dB DNL noise zones. Site 2 is located within the APZ I, the 80+ dB DNL noise zone and the Transitional Surface. Site 3 and 4 are located within the 75-79 dB DNL and the 80+ dB DNL noise zone. See **Figure 8** for a map of the noise zones within the Proposed Action area.

#### **3.7.2.1 No-Action Alternative**

Under the No-Action Alternative, there would be no impacts to the AICUZ or noise zones.

#### **3.7.2.2 Proposed Action**

Under the Proposed Action, Dyess AFB would encourage future development of Sites 1 and 2 by private landowners to be in compliance with current AICUZ guidelines. Sites 3 and 4 would be developed by Dyess AFB in compliance with current AICUZ guidelines and Noise Zone classifications.

#### **3.7.3 Safety and Occupational Health**

Compliance with airfield planning and design requirements is essential to the overall safety of AF personnel and neighboring communities. In accordance with the current UFC, Dyess AFB must identify the compliance status of features and facilities on the airfield and bring non-compliant facilities into compliance when re-built or modified. Since Dyess AFB's airfield is a Class B runway, a 1,000-foot runway lateral clearance zone is required. This clearance zone coincides with the primary surface, which is an "imaginary surface" defined by the Federal Aviation Administration (FAA) in 14 CFR Part 77. Both the runway lateral clearance zone and the primary surface must be kept clear of fixed or mobile obstacles. The primary surface is connected to the inner horizontal surface, which is 150 feet above the runway elevation, by a transitional surface which rises at a slope of 7H:1V. (DoD, 2008)

#### **3.7.4    No-Action Alternative**

Under the No-Action Alternative, there would be no changes to the current safety and occupational health conditions at Dyess AFB.

#### **3.7.5    Proposed Action**

The Proposed Action would improve the safety and occupational health of airfield and flight line personnel at Dyess AFB by the expansion of the runway lateral clearance zone and the acquisition of a height restriction for the Transitional Zone. Safety for the surrounding community will not be affected.

### **3.8      Socioeconomic Resources and Environmental Justice**

The EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994, requires that federal agencies must consider the affects of its actions on the human health and economic effect on surrounding populations. This EO also requires that federal actions should not have a disproportionately high and adverse affect on the human health or the natural environment in communities with predominantly minority and low-income populations.

According the AF *Guide for Environmental Justice Analysis with the EIAP*, analysis is not required if no disproportionately high impacts are expected to low income or minority populations by the Proposed Action. (USAF, 1997)

In 2008, 16 percent of the population of Taylor County lived above the poverty level, which is slightly higher than the state average of 15.8 percent; median household income was approximately \$41,232, which is lower than the state median income of \$50,049. Approximately 68.5 percent of the population self-identified their race as “white,” which is above the state value of 46.7 percent. ([quickfacts.census.gov](http://quickfacts.census.gov))

#### **3.8.1    No-Action Alternative**

Under the No-Action Alternative, no changes to the current condition would be expected. However, as compared to the Proposed Action, the No-Action Alternative would allow Sites 1 and 2 to remain unutilized, providing no benefit to Dyess AFB or the surrounding area.

#### **3.8.2    Proposed Action**

Implementation of the Proposed Action would allow Sites 1 and 2 to be transferred into private ownership. With development, Site 1 could provide short to long-term economic benefit to the surrounding area. Allowing Site 2 to be incorporated into an adjacent property could have positive effect on property values. Sites 3 and 4 would be converted from an inactive crop rotation agricultural field to a mowed grassy area under the ownership of Dyess AFB and would no longer be used for agricultural purposes. The Proposed Action would have no environmental consequences that would disproportionately affect low income or minority populations.

### **3.9      Soils**

The identification of soil types and characteristics is important to an understanding of how soils may respond to the ground disturbances that may occur during the re-alignment of the perimeter fence and the establishment of grass within the acquired property. According to the US

Department of Agriculture (USDA), NRCS Web Soil Survey (WSS), Sites 3 and 4 are comprised of Sagerton soils characterized as well-drained loamy soils. See **Appendix F** for maps and soil information gathered from the NRCS WSS.

Maintaining soil quality and integrity is important to the long-term stability of the perimeter fence and road as well as sustaining the grasses that may be established within Sites 3 and 4. Various erodibility indices for the Sagerton series indicate a low to moderate susceptibility to sheet and rill erosion during rain or wind events.

### 3.9.1 No-Action Alternative

Under the No-Action Alternative, the soils would remain in their present condition, therefore there would be no direct impacts anticipated to soils associated with implementing the Proposed Action.

### 3.9.2 Proposed Action

Proposed Action within Sites 3 and 4 would include moving the perimeter fence and minor surface grading in order to prepare the inactive agricultural field to establish grasses. Provided appropriate construction BMPs, such as erosion and sediment control, are followed these activities would have no significant affect on soil resources in the local or regional areas.

Prior to grading and perimeter fence relocation activities, Dyess AFB would be required to obtain all land disturbance permits necessary to comply with federal, AF, state and county requirements regarding soil disturbance.

## 3.10 Threatened and Endangered Species

Under the Endangered Species Act (ESA) of 1973, 16 USC 1536, an endangered species is defined as any species in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species likely to become an endangered species in the foreseeable future. The USFWS also maintains a list of species considered to be candidates for possible listing under the ESA.

The USFWS concurred with the AF determination of "No Affect" on endangered species for the Dyess AFB INRMP, which is hereby incorporated by reference. No federally listed threatened and endangered species are known to occur on Dyess AFB; therefore, no further concurrence from USFWS is necessary to implement the Proposed Action. At this time, there are no known species, covered by the MBTA, identified within the Proposed Action sites; therefore, no further concurrence from USFWS is necessary to implement the Proposed Action. A list of T&E Species commonly found in Taylor County, Texas is included in **Appendix G**.

### Texas Horned Lizard

There are no known occurrences of the Texas horned lizard (THL), *Phrynosoma cornutum*, listed by the State of Texas as a threatened species and by the USFWS as a Category 2 candidate species. However, the THL has a range from the south-central US to northern Mexico and includes much of Texas, Oklahoma, Kansas and New Mexico. However, due to the historic and current agricultural use of this site, it is unlikely that the THL is present at any of the Proposed Action Sites. A description of the THL and its habitat requirements are included in **Appendix H**.

### **3.10.1 No-Action Alternative**

Under the No-Action Alternative, there would be no changes expected from the current conditions.

### **3.10.2 Proposed Action**

Due to the current and historic disturbed conditions of the Proposed Action sites, it is unlikely that the realignment of the fence and establishment of grasses would cause a significant change in the current conditions. Construction crews would be instructed on how to recognize the THL and would be required to contact Dyess AFB Natural Resources, should one be found during grading and planting of the site, so that an authorized biologist can safely relocate the animal. No further concurrence with the USFWS is necessary in order to implement the Proposed Action.

## **3.11 Water Resources**

The EPA has established the NPDES program for construction sites, in order to reduce the level and type of pollutants that are frequently carried away from construction sites as stormwater flows across disturbed areas. The CWA, as amended in 1972, provides the statutory basis for the NPDES permit program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States. The AFI on Water Quality Compliance (AFI 32-7041) further identifies and defines the AF standards and protocols necessary to attain and sustain compliance with the CWA.

In Texas, the NDPEs program is carried out by TCEQ. Under the existing CGP, construction activities from which runoff goes into or adjacent to any surface water in the state are regulated according to the area of land disturbed. Large construction activities that disturb five or more acres, or are part of a larger common plan of development that will disturb five or more acres, are regulated under this general permit.

This CGP requires that all appropriate construction best management practices that eliminate or reduce pollutant discharge into stormwater be implemented and maintained to the maximum extent practicable.

There is a manmade ditch located approximately 180 feet southeast of Site 2. This ditch drains through a culvert under Airbase Road to an unnamed tributary of Little Elm Creek, which flows northeast beyond the boundary of Dyess AFB. Manmade ditches are also located along the western side of the airfield, which convey stormwater to Little Elm Creek. There are no other surface waters within the reach of the Proposed Action.

### **3.11.1 No-Action Alternative**

Under the No-Action Alternative, no ground disturbance within the project area would be expected; therefore, no TPDES permit would be required from TCEQ. Under the No-Action Alternative, there would be no impacts anticipated to water resources associated with implementing the Proposed Action.

### **3.11.2 Proposed Action**

Implementation of the Proposed Action would require Dyess AFB to obtain coverage under the TPDES permit program prior to land disturbing activities within Sites 3 and 4. Provided

construction BMPs, such as sediment controls along the perimeter, project timing during periods of low rainfall expectations, and quickly re-establishing vegetation, are implemented, the consequences of the Proposed Action to surface water, stormwater and other water resources would not be significant.

### **3.12 Utilities**

The potential for disruption of utility service or interference with the maintenance of utility related infrastructure within or near the Proposed Action should be carefully considered prior to decision-making. The EBS for Sites 3 and 4 indicate that an underground natural gas pipeline owned by Atmos Pipeline & Storage, LLC (ATMOS) is present. See **Appendix I** for a map of the pipeline location. Depth of cover for natural gas pipelines should be at least 36 inches, as required by 49 C.F.R. Part 192.327. Prior to realigning the fence, Dyess AFB will contact a utility location service such as Texas Excavation Safety System, Inc. (Texas 811) as required per Title 16, Part 1, Chapter 18 of the Texas Administrative Code in order to determine the exact location and depth of the pipeline.

#### **3.12.1 No-Action Alternative**

Under the No-Action Alternative, there would be no anticipated changes to utilities within or near the project area.

#### **3.12.2 Proposed Action**

The implementation of the Proposed Action within Sites 3 and 4 would result in moving the perimeter fence and minor surface grading in order to prepare the inactive agricultural field to establish grasses. Since these activities would not likely cause significant subsurface disturbances, no significant affect on utilities is expected by the implementation of the Proposed Action. Activities that may cause subsurface disturbance should be coordinated with the pipeline owner and operator.

**Table 3-2**  
**Summary of Affected Environments and Consequences of the**  
**Proposed Action and the No-Action Alternative**

Affected Environment	Proposed Action	No-Action Alternative
Air Quality	<p style="text-align: center;"><b>No Significant Impact</b></p> <p>Future fugitive dust emissions from agricultural soil disturbances would no longer occur on Sites 3 and 4. The Proposed Action would not cause an exceedence of deminimus levels and a formal conformity determination is not required.</p>	No change would occur.
	<p style="text-align: center;"><b>No Significant Impact (Temporarily Negative)</b></p> <p>Although it is unclear how Sites 1 and 2 will be privately developed, standard practices of wetting disturbed soils will ensure that fugitive dust emissions are minimal. Temporary impacts to air quality may occur at Sites 3 and 4, during grading activities, due to fugitive dust and increased emissions from construction equipment. Appropriate construction best management practices (BMPs) would be maintained to reduce impact to air quality during construction.</p>	
Airspace	<p style="text-align: center;"><b>No Significant Impact (Positive)</b></p> <p>Would increase amount of airspace designated for runway lateral clearance zone, thereby attaining conformance with the current UFC.</p>	No Significant Impact (Negative) Dyess AFB would remain out of conformance with the current UFC.
Floodplains	<p style="text-align: center;"><b>No Significant Impact (Positive)</b></p> <p>Of the property that Dyess AFB would acquire, approximately 2.4 acres in Site 4 is located a floodplain. Since the existing fence (which is currently in a floodplain) would be an obstruction to the new runway lateral clearance zone, it must be moved; therefore, a Finding of No Practicable Alternative (FONPA) is required. The realignment of the perimeter fence reduces the length of existing fence within the floodplain by 200 linear feet. The floodplain's ability to function will not be affected by this action.</p>	No change would occur.
Hazardous materials and wastes	<p style="text-align: center;"><b>No Significant Impact</b></p> <p>The Transmitter Building on Site 1 was constructed prior to 1980. This building contains asbestos containing materials (ACM) in pipe insulation and caulk and may contain lead based paint. The ACM would be abated prior to transfer or this information would be disclosed to the private property owner prior to transfer. The potential presence of LBP would be disclosed to the private property owner prior to transfer.</p> <p>No new hazardous materials or wastes are proposed.</p>	No change would occur.

Affected Environment	Proposed Action	No-Action Alternative
<b>Land Use (AICUZ and Noise Zones)</b>	<p><b>No Significant Change</b></p> <p>Site 1 is located within the 70-74 db DNL and the 75-79 dB DNL noise zones. Site 2 is located within the APZ I, the 80+ dB DNL noise zone and the Transitional Surface. Future development of Sites 1 and 2 by private land owners would be in compliance with proposed deed restrictions.</p> <p>Site 3 and 4 are located within the 75-79 dB DNL and the 80+ dB DNL noise zone. Sites 3 and 4 would be developed by Dyess AFB in compliance with current AICUZ and Noise Zone classifications.</p>	No change would occur.
<b>Land Use (Local Use)</b>	<p><b>No Significant Impact</b></p> <p>The Proposed Action will change the land use of Sites 1 and 2 from federal to private use; Sites 3 and 4 from private use (prime farmland) to federal use (non-agricultural).</p> <p>Future uses would be limited to those in compliance with proposed deed restrictions.</p> <p>The conversion of prime farmland to non-agricultural use would not significantly affect the overall production of agricultural products in the city of Tye. No significant affect on land use or agricultural production would occur as a result of the Proposed Action.</p>	No change would occur.
<b>Safety and Occupational Health</b>	<p><b>No Significant Impact (Positive)</b></p> <p>Increased runway lateral clearance zone and transitional zone easements would improve overall safety for airfield and flight personnel.</p>	<p><b>No Significant Impact (Negative)</b></p> <p>The runway lateral clearance zone and height restrictions for the transitional Zones would not be increased; therefore, safety for airfield and flight personnel would remain unchanged.</p>
<b>Socioeconomic Resources and Environmental Justice</b>	<p><b>No Significant Impact</b></p> <p>Development of Site 1 could provide short to long-term economic benefit to the surrounding area. Allowing Site 2 to be incorporated into an adjacent property could have positive effect on property values.</p> <p>Sites 3 and 4 would no longer be used for agricultural purposes.</p>	No change would occur.
<b>Soils</b>	<p><b>No Significant Impact (Positive)</b></p> <p>Minor surface disturbance of the agricultural field would occur on Sites 3 and 4 (short-term). No future soil disturbances from agricultural activities would occur (long-term).</p>	No change would occur.

Affected Environment	Proposed Action	No-Action Alternative
<b>Threatened &amp; Endangered (T&amp;E) Species</b>	<p><b>No Significant Impact (Temporarily Negative)</b></p> <p>Due to the current and historic disturbed conditions of the Proposed Action sites, it is unlikely that the realignment of the fence and establishment of grasses would cause a significant change in the current conditions. Construction crews would be instructed on how to recognize the THL and would be required to contact Dyess AFB Natural Resources, should one be found during grading and planting of the site, so that an authorized biologist can safely relocate the animal. No federally listed threatened and endangered species are known to occur on Dyess AFB; therefore, no further concurrence from USFWS is necessary to implement the Proposed Action.</p>	No change would occur.
<b>Utilities</b>	<p><b>No Change</b></p> <p>While an underground pipeline is located on Sites 3 and 4, the pipeline or other surrounding utilities would not be affected by the proposed shallow surface disturbance.</p>	No change would occur.
<b>Water Resources</b>	<p><b>No Significant Impact</b></p> <p>Provided construction BMPs are followed, such as implementation of sediment controls along the perimeter of the disturbed area, project timing during periods of low rainfall expectations, and quickly re-establishing vegetation, the consequences of the Proposed Action to surface water, stormwater and other water resources would not be significant.</p>	No change would occur.

## **4 CUMULATIVE CONSEQUENCES**

Cumulative effects on environmental resources include activities that occur within the geographical reach of the resource (habitat, watershed, or other such reasonable limitation) and occur within a timeframe such that the resource has not had sufficient time to recover from the identified activity. The range of discussion regarding the cumulative affects on the environment is limited to the environments that would be permanently negatively affected by the Proposed Action and identified past, present, and future actions. The depth of discussion has necessarily been limited by the level of information that exists regarding the past, present or future activities.

Following the land exchange, it is unknown how the proposed private landowners of Sites 1 and 2 may utilize their newly acquired property; land use restrictions would be placed on Sites 1 and 2 in order to ensure no future structures or activities would conflict with the runway lateral clearance zone or the Transitional Zone.

### **4.1 Cumulative Actions Considered**

Land disturbing activities within the last six months on Dyess AFB include the Capital Improvement Program (CIP). On-going construction activities include construction of the C-130J Maintenance Hangar and the construction of the Armed Forces Reserve Center, which is a result of the Base Realignment and Closure (BRAC) Commission recommendations for Dyess AFB. Planned future activities include the construction of a Waste-to-Energy facility. The activities resulted in temporary impacts to air quality and soil erodibility due to construction activities.

No major construction activities have been conducted within the past six months, and none are planned within the next 12 months in the City of Tye.

### **4.2 Air Quality**

Cumulative impacts to air quality would be considered significant if the Proposed Action, when considered with other past present and future actions, increased ambient pollutant concentrations above the applicable NAAQS, contributed to an existing violation of the NAAQS or resulted in nonconformance with the CAA or SIP. Since the Proposed Action would generate only temporary construction related air emissions such as fugitive dust, particulate matter less than 10 micrometers in size, (PM-10) and emissions from construction equipment, only similar impacts to air quality were considered in the analysis.

#### **4.2.1 No-Action Alternative**

Under the No-Action Alternative, there would be no changes to the current air emissions at Dyess AFB.

#### **4.2.2 Proposed Action**

Construction projects within Texas are required to implement soil wetting and other stabilization methods during and immediately following soil disturbing activities. Therefore, PM-10 emissions from the Proposed Action, when considered in combination with emissions from other past (six months), on-going and future (12 months) projects, no significant cumulative impacts to air quality are expected.

Since construction related vehicle emissions during the implementation of the Proposed Action are expected to be minimal and short-term, when considered in combination with emissions from other past (six months), on-going and future (12 months) projects, no significant cumulative impacts to air quality are expected.

### **4.3 Land Use**

Cumulative effects on land use would include conversions of agricultural land by federal agencies within city of Tye. The threshold of impact would be reached if the overall production of agricultural products were diminished to the point that supply could not keep pace with demand or if the land use changes would limit the ability of current or future landowners to utilize property in the project area.

#### **4.3.1 No-Action Alternative**

No cumulative consequences to land use or prime farmland are expected as a result of this alternative.

#### **4.3.2 Proposed Action**

No major construction activities have been conducted within the past six months and no major construction activities are planned within the next 12 months in the City of Tye; therefore there are no cumulative actions to consider with regards to land use. No cumulative consequences to land use or prime farmland area expected as a result the Proposed Action.

### **4.4 Soils**

Cumulative effects on soils within adjacent properties would include activities that would contribute to the destabilization of soils in and around the Proposed Action. Potential impacts could include wind or water based erosion impacts and would be considered significant if destabilization of soils causes damage to property or existing vegetation.

#### **4.4.1 No-Action Alternative**

No cumulative consequences to soil resources are expected as a result of this alternative.

#### **4.4.2 Proposed Action**

Appropriate construction BMPs, such as sediment controls along the perimeter, project timing during periods of low rainfall expectations, soil wetting, and quickly re-establishing vegetation. No significant cumulative consequences are expected to soil resources as a result of this alternative.

### **4.5 Description of Irreversible or Irretrievable Commitment of Resources**

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Nonrenewable resources cannot ever be replaced by natural processes or are not capable of naturally regenerating within the timeframe of human consumption cycles. These resources include fossil fuels and can include such resources as soil, water, plants and animals when consumption levels are greater than the naturally occurring renewal levels.

Neither the implementation of the Proposed Action, or the No-Action Alternative, would include the use of non-renewable resources nor would either alternative have any affects on non-renewable resources. Therefore, there are no irreversible and irretrievable commitments of resources associated with the Proposed Action or No-Action alternatives.

## **5 RELEVANT RESOURCES**

### **5.1 References**

Phase One EBS Report for Ashenfelter (Site 3) & Milliorn (Site 4) Properties, Dyess AFB, 2008.

Phase One EBS Report for the Disposition of Communications Annex Transmitter (Building 1001), Dyess AFB, 2004.

Phase One EBS Report for the Disposition of ILS Middle Marker Annex 02, Dyess AFB, 2004.

USGS, 1987. Abilene West 100K Topographic Quadrangle.

US Census Bureau, <http://quickfacts.census.gov/qfd/states/48000.html>, visited March 11, 2011.

USDA, 2009, <http://websoilsurvey.mcs.usda.gov/app/HomePage.htm>, visited January 8, 2010.

### **5.2 Relevant Statutes, Regulations and Guidelines**

Antiquities Act, 16 USC 431-433, 1906.

Archaeological Resources Protection Act, 16 USC 469 et seq, 1979.

Archaeological and Historic Preservation Act, 16 USC 470aa et seq, 1974.

Council on Environmental Quality (CEQ), 40 CFR 1502.15, Environmental Impact Statement.

Clean Air Act (CAA), 42 USC 85 et seq, 1990.

Clean Water Act (CWA), 33 USC 1251 et seq, 1977.

Endangered Species Act (ESA), 16 USC 1531 et seq, 1973.

Federal Aviation Administration, 14 CFR 77 et seq.

Fish and Wildlife Conservation Act, 16 USC 2901 et seq, 1980.

Historic Sites Act of 1935, 16 USC 461 et seq, 1935.

Intergovernmental Cooperation Act (ICA), 42 USC 6501-6508.

Migratory Bird Treaty, 16 USC 703 et seq, 1918.

National Environmental Policy Act (NEPA) 40 CFR Parts 1500-1508 (Public Law 91-190, 42 USC 4321-4347), 1969.

National Historic Preservation Act, 16 USC 470, 1966.

Native American Grave Protection and Repatriation Act, 25 USC 3001 et seq, 1990.

North American Wetlands Conservation Act, 16 USC 4401 et seq, 1989.

Protection of Historic and Cultural Properties, 36 CFR 800, 1986.

### **5.3 Executive Orders**

Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality, 1970.

EO 11988, *Floodplain Management*, 1977.

EO 11990, *Protection of Wetlands*, 1977.

EO 11991, Relating to Protection and Enhancement of Environmental Quality, 1977.

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, 1995.

EO 13084, Consultation and Coordination with Indian Tribal Governments, 1998.

EO 13112, *Invasive Species*, 1999.

### **5.4 DoD and USAF Policy and Instructions**

AFI 32-7041, *Water Quality Compliance*, December 10, 2003.

AFI 32-7060, Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), March 25, 1994.

AFI 32-7061, *Environmental Impact Analysis Process*, March 12, 2003.

AFI 32-7064, *Integrated Natural Resources Management*, September 17, 2004.

AFI 32-7065, *Cultural Resource Management Program*, June 1, 2004.

AFI 32-7080, *Pollution Prevention Program*, May 12, 1994.

AFI 32-7086, *Hazardous Material Management*, November 1, 2004.

Council on Environmental Quality (CEQ), 1997. Executive Office of the President, *Considering Cumulative Effects under the National Environmental Policy Act*. U.S. Government Printing Office.

Department of the Air Force, 2003. *Environmental Impact Analysis Process* (32 CFR Part 989).

DoD, 1998. American Indian and Alaska Native Policy, October 20, 1998.

DoD, 2008. Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, 2008.

USAF, 1997. *A Guide for Environmental Justice Analysis with the EIAP*, November 1997.

## **5.5 Persons and Agencies Consulted During Scoping Process**

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## **FIGURES**

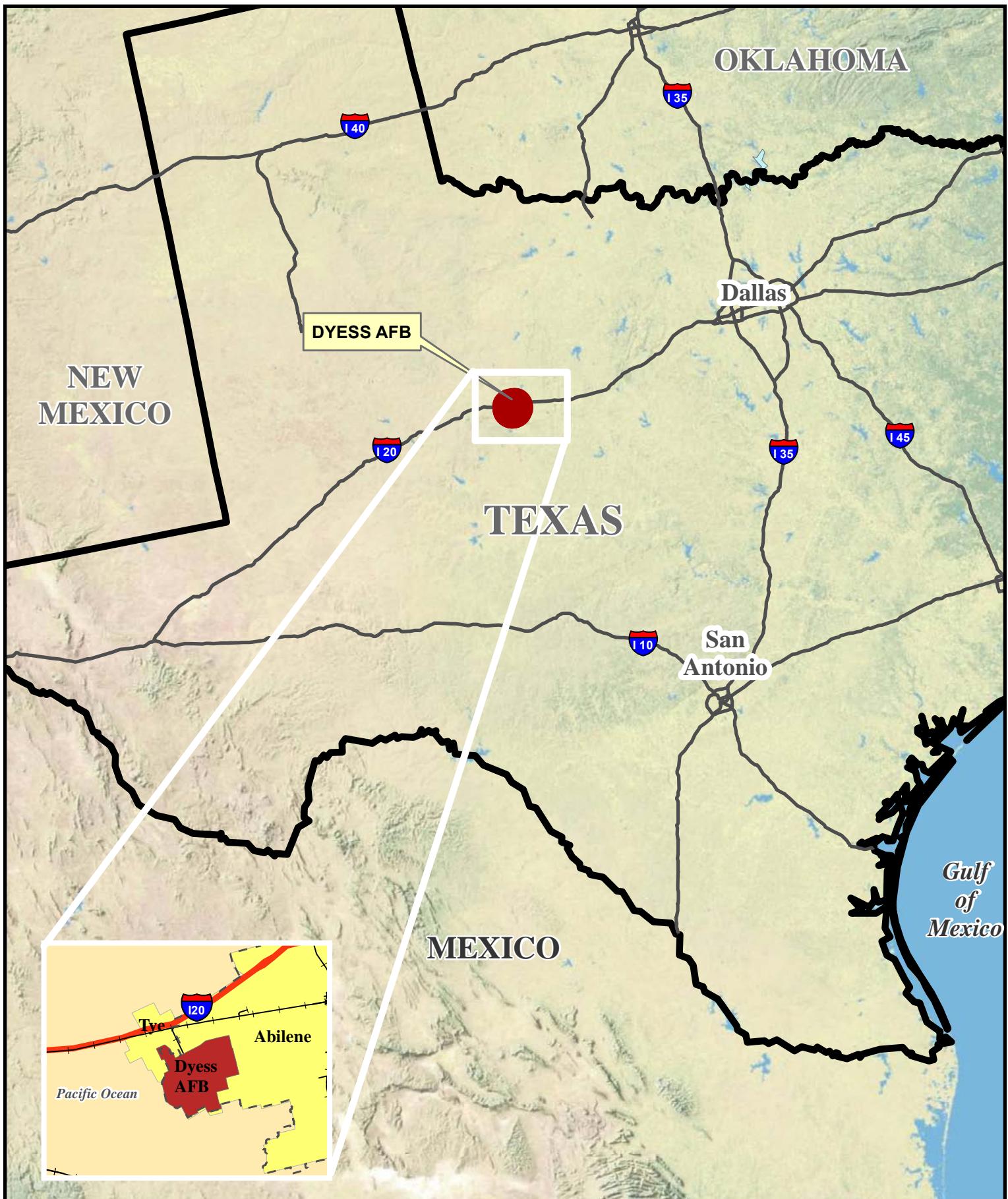
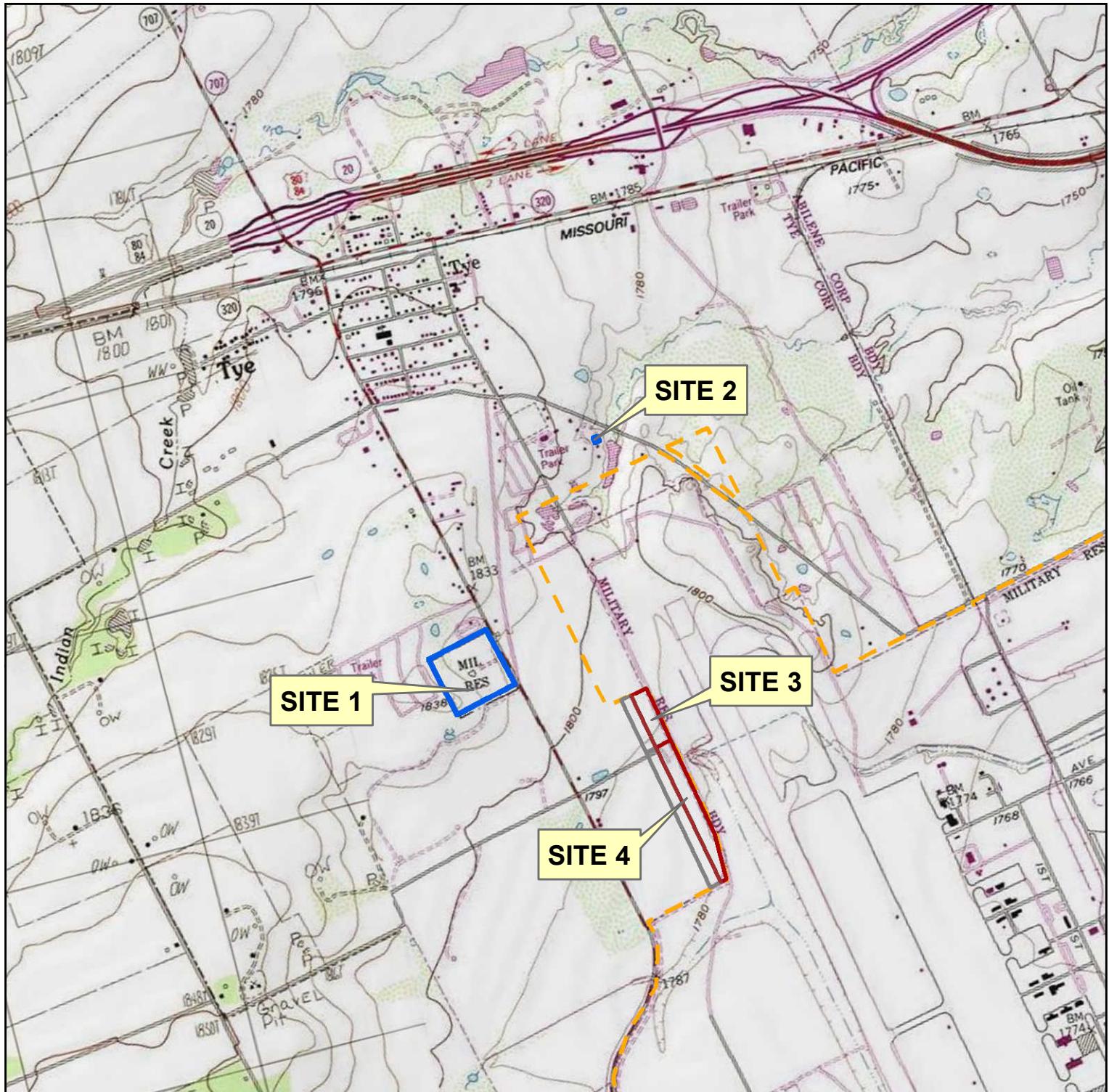


FIGURE 1: REGIONAL MAP OF DYESS AFB



### Legend

- Easement (Proposed)
- Dyess AFB Property (Proposed)
- Dyess AFB Parcels (Current)
- Dyess Installation Boundary

**FIGURE 2: MAP OF PROPOSED ACTION SITE LOCATIONS**



0 410 820 1,640 2,460 3,280 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas



### Legend

- Dyess AFB Parcels (Current)
- Installation Boundary (Current)

Data Sources:  
City of Abilene - Road centerlines,  
Installation Boundary and City Limits  
[www.TNRIS.org](http://www.TNRIS.org) - Aug 2010 Aerial Photography

FIGURE 3: AERIAL MAP OF PROPOSED ACTION SITE 1



0 75 150 300 450 600 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas



### Legend

- Dyess AFB Parcels (Current)
- Installation Boundary (Current)

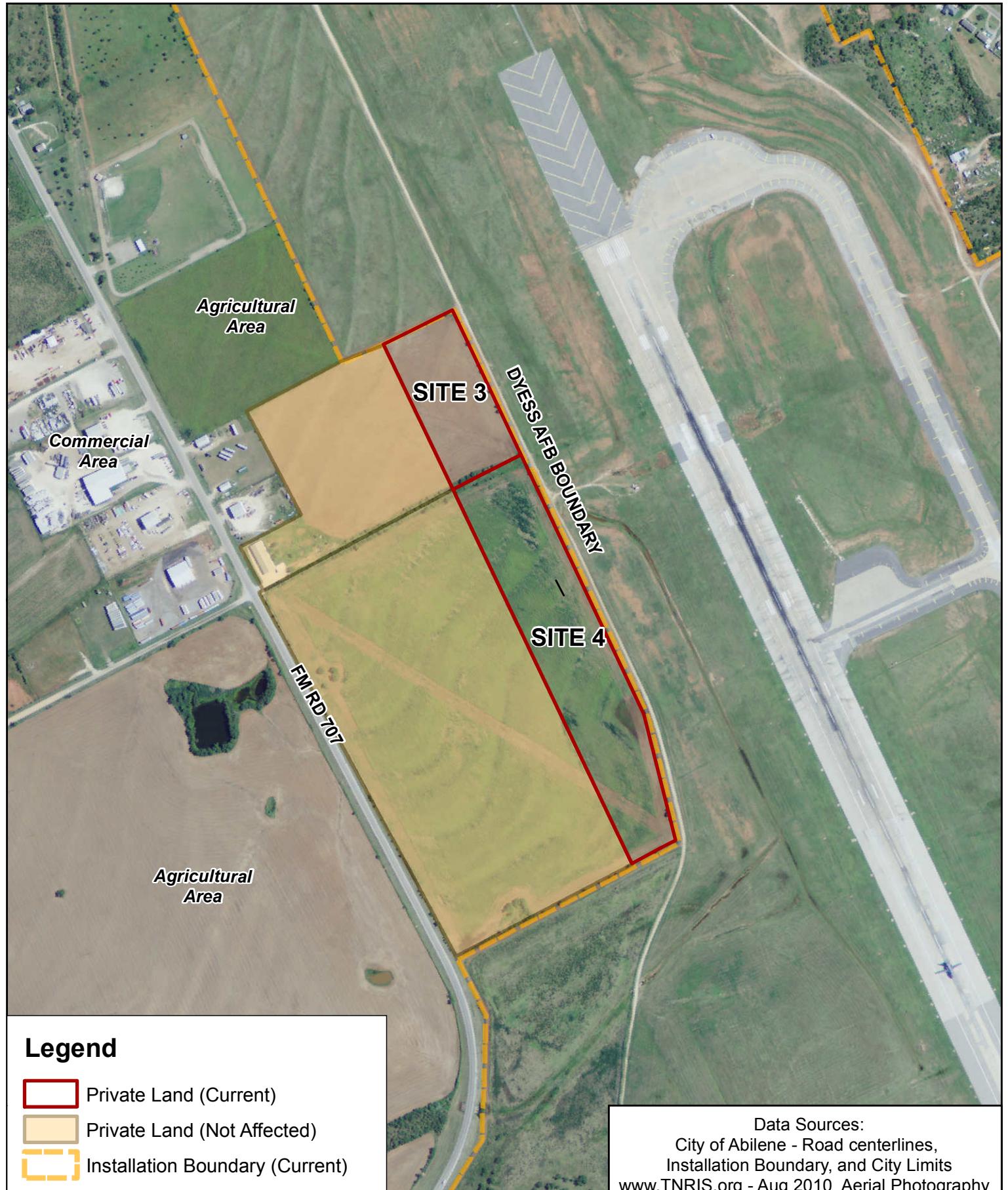
Data Sources:  
City of Abilene - Road centerlines,  
Installation Boundary and City Limits  
[www.TNRIS.org](http://www.TNRIS.org) - Aug 2010 Aerial Photography

FIGURE 4: AERIAL MAP OF PROPOSED ACTION SITE 2



0 62.5 125 250 375 500 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas

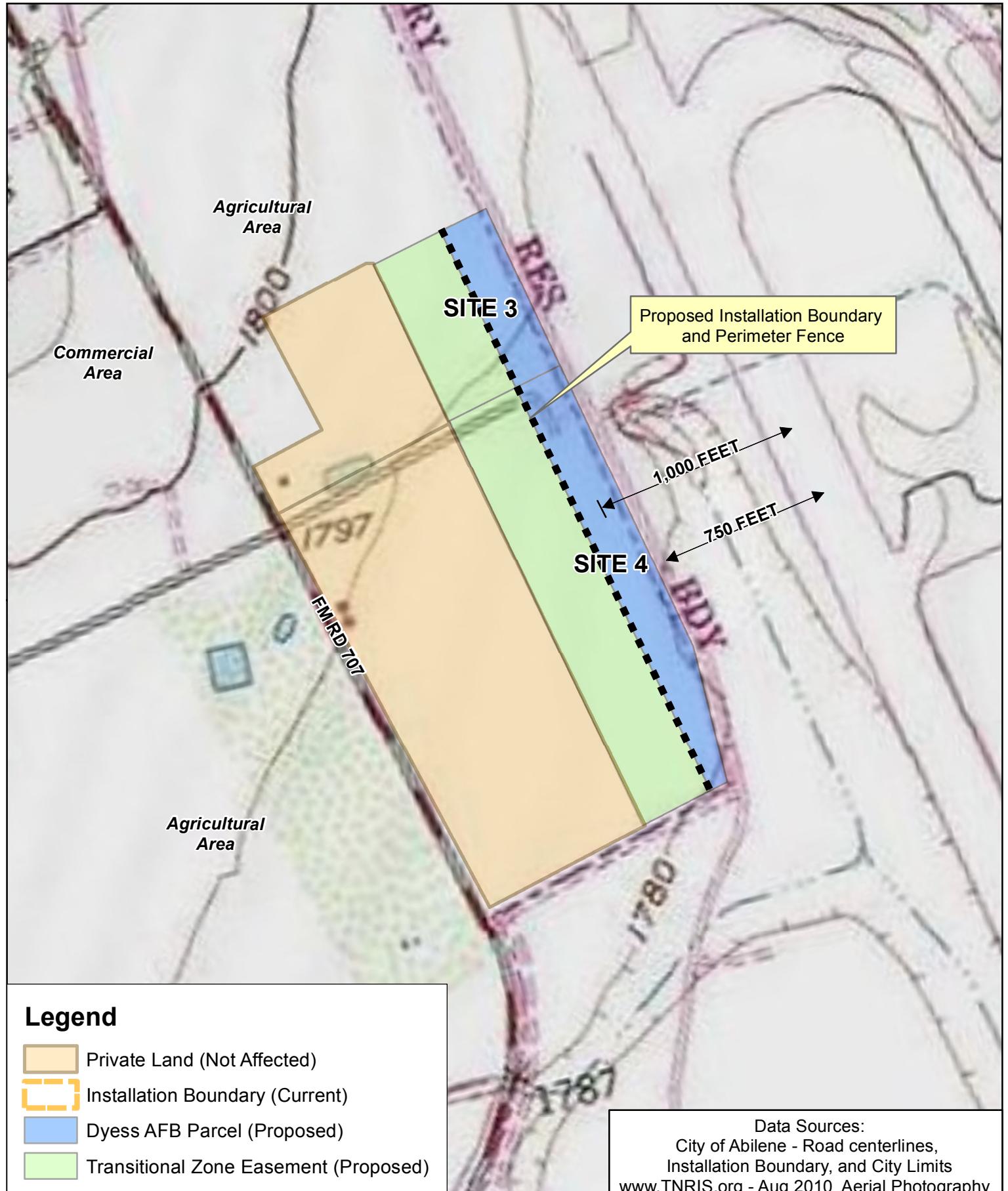


**FIGURE 5: AERIAL MAP OF PROPOSED ACTION SITES 3 AND 4**



0 120 240 480 720 960 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas

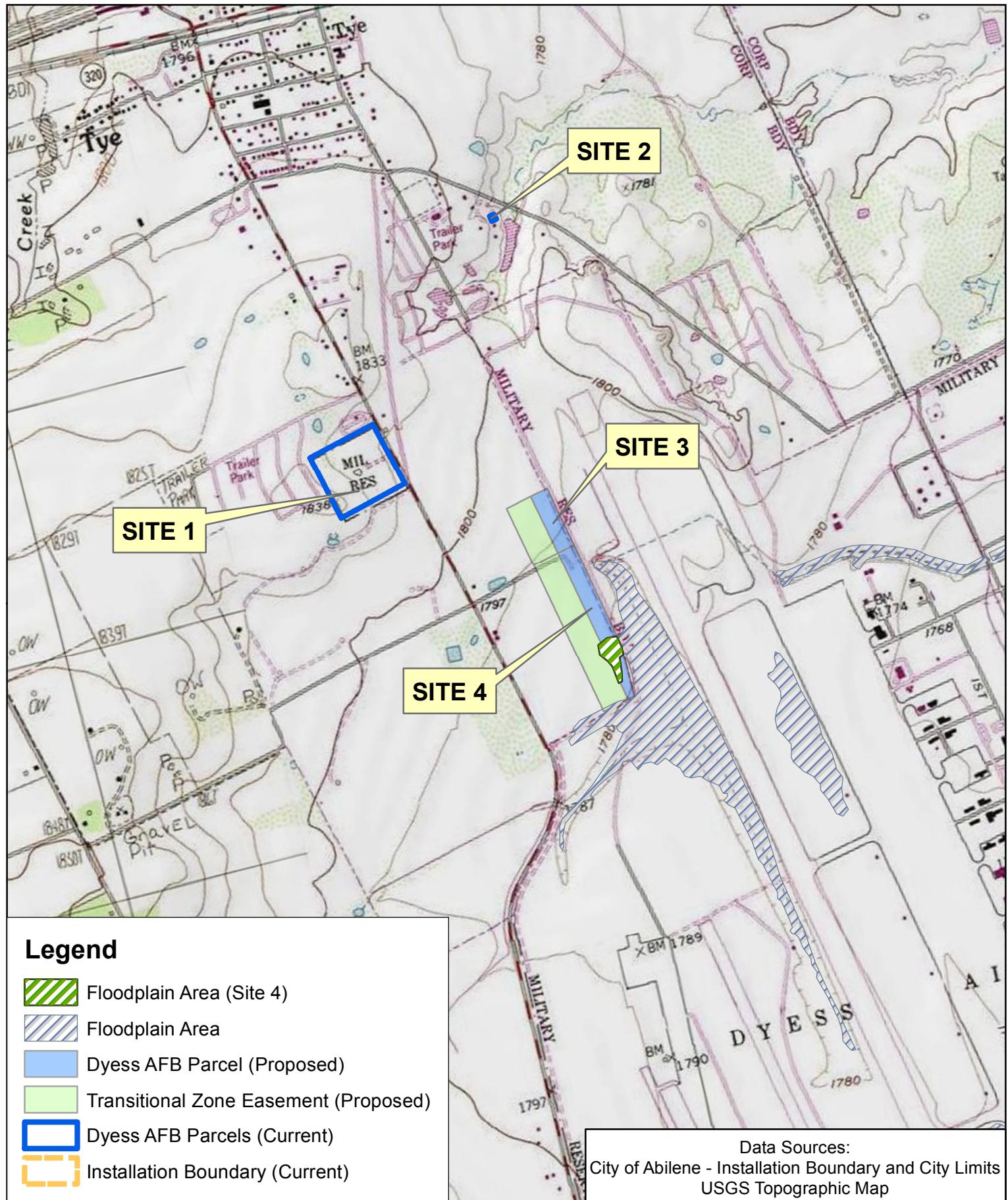


**FIGURE 6: PROPOSED CHANGES FOR SITES 3 AND 4**



0 110 220 440 660 880 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas



## **FIGURE 7: FLOODPLAINS NEAR PROPOSED ACTION AREAS**



0    350    700    1,400    2,100    2,800    Feet

**Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas**

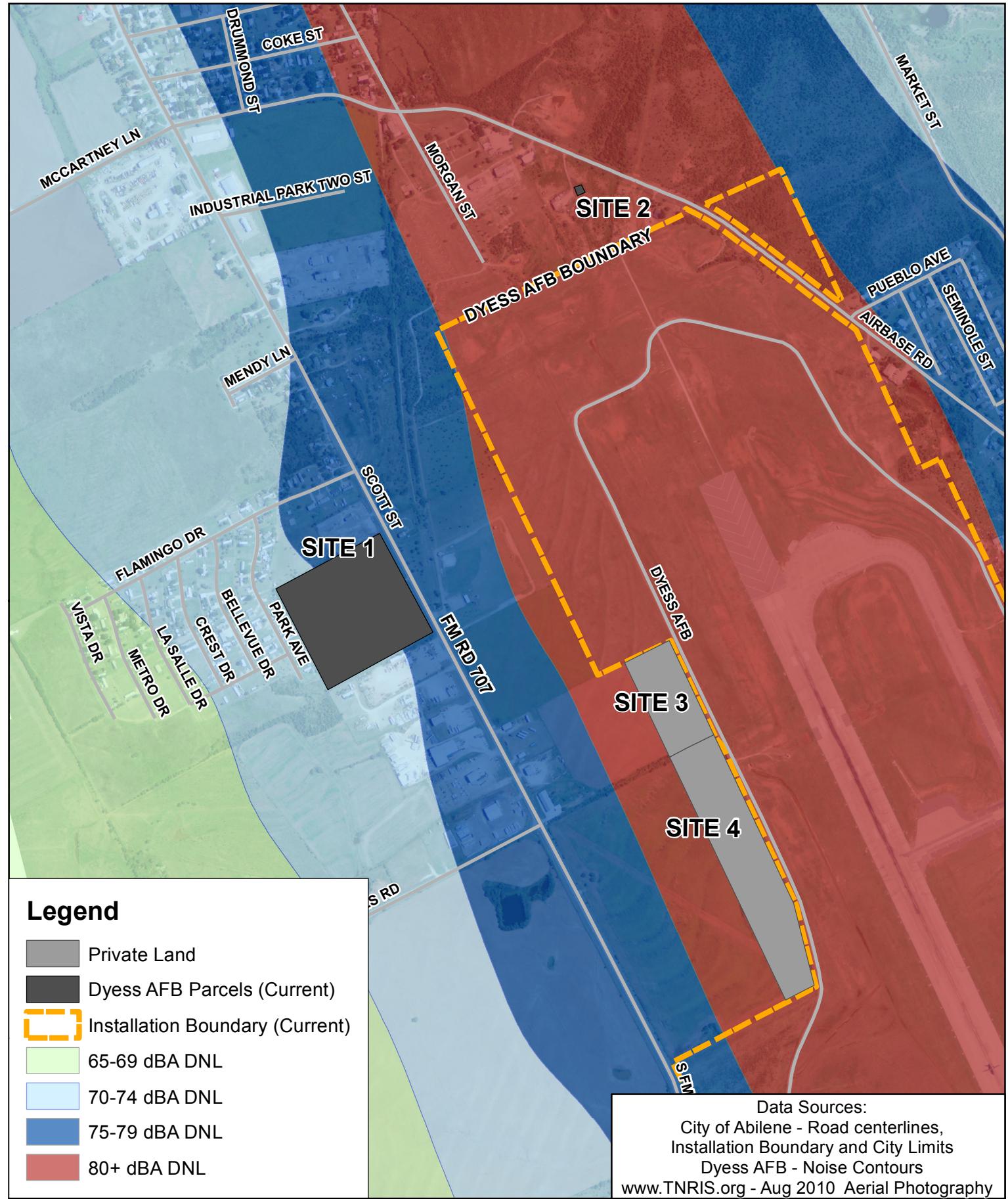


FIGURE 8: NOISE CONTOURS FOR PROPOSED ACTION AREA



0 187.5 375 750 1,125 1,500 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas

## **APPENDIX A**

## CHAPTER 3

### RUNWAYS (FIXED-WING) AND IMAGINARY SURFACES

3-1 **CONTENTS.** This chapter presents design standards and considerations for fixed-wing runways and associated imaginary surfaces.

**3-2 REQUIREMENTS.** The landing and takeoff design considerations for an airfield include mission requirements, expected type and volume of air traffic, traffic patterns such as the arrangement of multidirectional approaches and takeoffs, ultimate runway length, runway orientation required by local wind conditions, local terrain, restrictions due to airspace obstacles or the surrounding community, noise impact, and aircraft accident potential. When planning to construct a new runway or to lengthen an existing runway, in addition to local permitting requirements, file FAA Form 7480-1 in accordance with FAA Order 7400.2.

**3-3 RUNWAY CLASSIFICATION.** Runways are classified as either Class A or Class B based on aircraft type as shown in Table 3-1. This table uses the same runway classification system established by the Office of the Secretary of Defense as a means of defining accident potential areas (zones) for the AICUZ program. These runway classes are not to be confused with aircraft approach categories and aircraft wingspan in other DOD or FAA documents, aircraft weight classifications, or pavement traffic areas. The aircraft listed in Table 3-1 are examples of aircraft that fall into these classifications and may not be all-inclusive.

3-3.1 **Class A Runways.** Class A runways are primarily intended for small, light aircraft. These runways do not have the potential or foreseeable requirement for development for use by high-performance and large, heavy aircraft. Ordinarily, these runways are less than 2,440 m (8,000 ft) long and less than 10 percent of their operations involve aircraft in the Class B category; however, this is not intended to limit the number of C-130 and C-17 operations conducted on any Class A airfield.

3-3.2 **Class B Runways.** Class B runways are primarily intended for high-performance and large, heavy aircraft, as shown in Table 3-1. For flight safety clearances applicable to USAF missions on US Army airfields, see paragraph 2-5.4.2.

3-3.3 **Rotary-Wing and V/STOL Aircraft.** Runways for rotary-wing and V/STOL (V-22) aircraft are not addressed in this chapter. Design standards and considerations for rotary-wing aircraft runways and landing lanes are provided in Chapter 4 of this manual. Information on design standards and considerations for the V/STOL aircraft may be obtained from:

NAVFAC Atlantic CI Eng  
6506 Hampton Blvd  
Norfolk, VA 23508-1278

**Table 3-1. Runway Classification by Aircraft Type**

Runway Classification by Aircraft Type				
Class A Runways		Class B Runways		
C-1	OV-1	A-4	C-141	P-3
C-2	OV-10	A-6	E-3	RQ-1
C-12	T-3	EA-6B	E-4	S-3
C-20	T-28	A-10	E-6	SR-71
C-21	T-34	AV-8	E-8	T-1
C-22	T-41	B-1	R/F-4	T-2
C-23	T-44	B-2	F-5	T-6
C-26	U-21	B-52	F-14	T-37
C-32	UV-18	C-5	F-15	T-38
C-37	V-22	C-9	F-16	T-39
C-38	DASH-7	KC-10	F/A-18	T-42
E-1	DASH-8	KC-135	F-22	T-43
E-2		C-17	FB-111	T-45
		C-130	F-117	TR-1
		C-135		U-2
		C-137		VC-25
				JSF (F-35)

**NOTES:**

1. Only symbols for basic mission aircraft or basic mission aircraft plus type are used. Designations represent entire series. Runway classes in this table are not related to aircraft approach categories, aircraft weight, aircraft wingspan, or to pavement design classes or types.
2. These are examples of aircraft that fall into these classifications, and may not be all-inclusive.
3. Rotary aircraft are not addressed in this table.
4. The V-22 aircraft is a rotary aircraft that operates as a rotary-wing aircraft on a Class A runway and operates as either a fixed-wing or rotary-wing aircraft on taxiways associated with Class A runways.

**3-3.4 Landing Zones (formerly called Short Fields and Training Assault Landing Zones).**

Landing zones are special use fields. Design criteria are found in Air Force engineering technical letter (ETL) 04-7. Geometric criteria for these airfields are provided in Chapter 7 of this manual.

**3-4 RUNWAY SYSTEMS.** As discussed in Chapter 2, an airfield normally has only one runway.

**3-4.1 Single Runway.** A single runway is the least flexible and lowest capacity system. The capacity of a single runway system will vary from approximately 40 to 50 operations per hour under IFR conditions and up to 75 operations per hour under VFR conditions.

**3-4.2 Parallel Runways.** Parallel runways are the most commonly used system for increased capacity. In some cases, parallel runways may be staggered, with the runway ends offset from each other and with terminal or service facilities located

between the runways. When parallel runways are separated by less than the distance shown in Item 15 of Table 3-2, the second runway will increase capacity at the airfield under VFR conditions, but due to the close distance, capacity at the airfield will not be increased under IFR conditions.

**3-4.3 Crosswind Runways.** Crosswind runways may be either the open-V or the intersecting type of runway. The crosswind system is adaptable to a wider variety of wind conditions than the parallel system. When winds are calm, both runways may be used simultaneously. An open-V system has a greater capacity than an intersecting system.

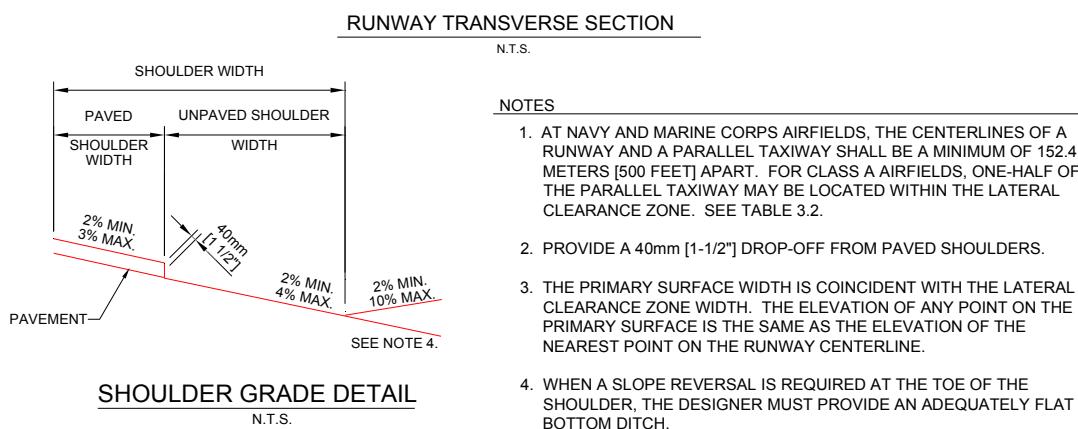
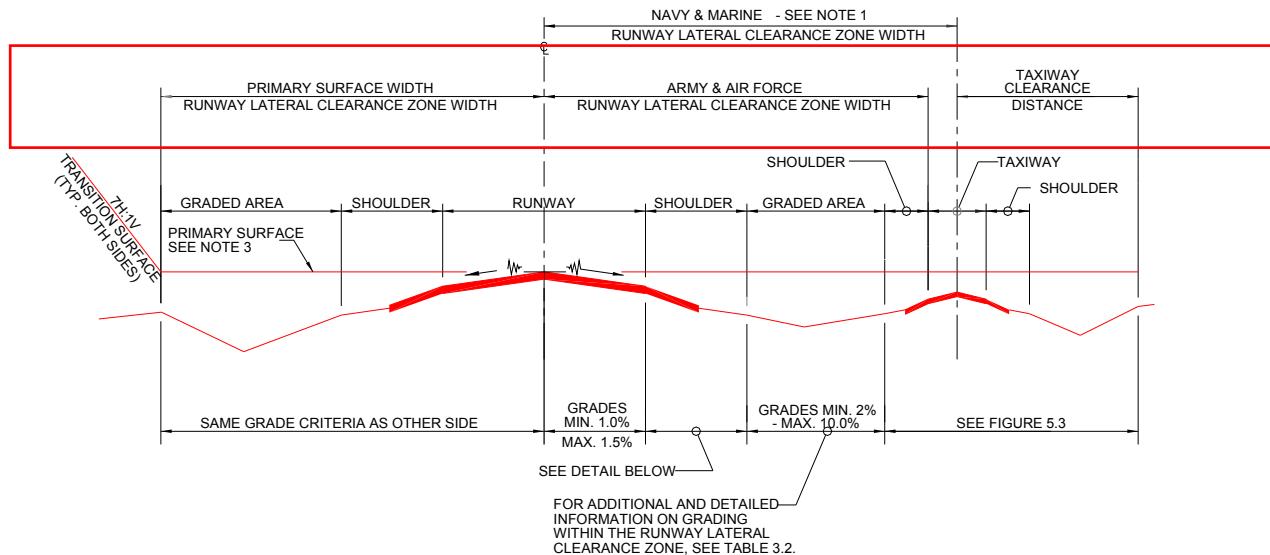
**Table 3-2. Runways**

Item		Class A Runway	Class B Runway	Remarks
No.	Description	Requirement		
1	Length	See Table 3-3	See Remarks	For Army airfields. For Army Class B runways, runway length will be determined by the Air Force MAJCOM for the most critical aircraft in support of the mission.
		See Remarks	See Remarks	For Air Force airfields, runway length will be determined by the MAJCOM/A3 for the most critical aircraft to be supported
		See Remarks	See Remarks	For Navy and Marine Corps airfields, see NAVFAC P-80 for computation of runway lengths.
2	Width	30 m (100 ft)	46 m (150 ft)	Army airfields and Air Force airfields, not otherwise specified.
		N/A	90 m (300 ft)	B-52 aircraft. AFI 11-202 V3 allows that B-52 aircraft may routinely operate on 60 m (200 ft) wide runways.
		23 m (75 ft)	N/A	Navy and Marine Corps Class A runways. Runway width for T-34 and T-44 will be 45 m (150 ft).
		N/A	60 m (200 ft)	Navy and Marine Corps airfields
3	Total width of shoulders (paved and unpaved)	15 m (50 ft)	60 m (200 ft)	Army and Air Force airfields
		7.5 m (25 ft)	46 m (150 ft)	Navy and Marine Corps airfields

Item		Class A Runway	Class B Runway	Remarks
No.	Description	Requirement		
				runway edge sheaves, paved shoulder slope should match runway cross slope on centerline crowned runways. Designers shall warp the adjacent tape sweep area pavement surfaces to direct drainage away from the aircraft arresting system components as much as possible.  Pavement within the tape sweep area of arresting systems shall meet the design and grade criteria in USAF Typical Installation Drawing 67F2011 A.
11	Transverse grade of unpaved shoulder	(a) 40-mm (1.5-in) drop-off at edge of paved shoulder, +/- 13 mm (0.5 in) (b) 2 percent min, 4 percent max.		Unpaved portion of shoulder Slope downward from shoulder pavement. For additional information, see Figure 3-1. Reversals not allowed.
12	Runway lateral clearance zone	152.40 m (500 ft)	152.40 m (500 ft)	Army airfields
		152.40 m (500 ft)	304.80 m (1,000 ft)	Air Force, Navy, and Marine Corps
				The runway lateral clearance zone's lateral limits coincide with the limits of the primary surface. The ends of the lateral clearance zone coincide with the runway ends. The ground surface within this area must be clear of fixed or mobile objects, and graded to the requirements of Table 3-2, items 13 and 14.  The zone width is measured perpendicularly from the centerline of the runway and begins at the runway centerline. See Table 3-7 for other height restrictions and controls.
				(1) Fixed obstacles include man-made or natural features such as buildings, trees, rocks, terrain irregularities and any other features constituting possible hazards to moving aircraft. Navigational aids and meteorological equipment will be sited within these clearances where essential for their proper functioning. For Army and Air Force, this area to be clear of all obstacles except for property sited permissible deviations noted in Appendix B, Chapter 13. For Navy and Marine Corps, certain items that are listed in paragraph 2-10.9 are exempted.
				(2) Mobile obstacles include parked aircraft, parked and moving vehicles,

Item		Class A Runway	Class B Runway	Remarks
No.	Description	Requirement		
				railroad cars, and similar equipment. Taxiing aircraft, emergency vehicles, and authorized maintenance vehicles are exempt from this restriction.
				(3) For Army and Air Force airfields, parallel taxiway (exclusive of shoulder width) will be located in excess of the lateral clearance distances (primary surface). For Navy and Marine Corps airfields, the centerline of a runway and a parallel taxiway shall be a minimum of 152.4 m (500 ft) apart. For Class A Airfields, one half of the parallel taxiway may be located within the runway lateral clearance zone.
				(4) For Class A runways, except at Navy and Marine Corps airfields, above ground drainage structures, including head wall, are not permitted within 91.26 m (300 ft) of the runway centerline. For Class B runways, except at Navy and Marine Corps airfields, above ground drainage structures, including head walls are not permitted within 114.3 m (375 ft) of the runway centerline. At Navy and Marine Corps airfields, above ground drainage structures will be individually reviewed. Drainage slopes of up to a 10 to 1 ratio are permitted for all runway classes, but swales with more gentle slopes are preferred.
				(5) Distance from runway centerline to helipads is discussed in Table 4-1. (6) For Military installations overseas (other than bases located in the United States, its territories, trusts, and possessions), apply to the maximum practical extent.
		152.4 m (500 ft)	228.6 m (750 ft)	Navy airfields constructed prior to 1981.
13	Longitudinal grades within runway lateral clearance zone	Max 10.0 percent		Exclusive of pavement, shoulders, and cover over drainage structures.  Slopes are to be as gradual as practicable. Avoid abrupt changes or sudden reversals. Rough grade to the extent necessary to minimize damage to aircraft.

**Figure 3-1. Runway Transverse Sections and Primary Surface**



CLASS A AND CLASS B RUNWAYS

## **APPENDIX B**



**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR The Honorable Norm Archibald  
Mayor of Abilene  
P.O. Box 60  
555 Walnut Street  
Abilene, Texas 79604

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

1. Dyess AFB is preparing an EA for a proposed Land Exchange. The purpose of the Proposed Action is to address compliance with current airfield standards, which requires a runway lateral clearance zone of 1,000 feet. The northeast portion of Dyess AFB's airfield complies with the current 1,000-foot runway lateral clear zone; however, the northwest portion of the airfield is currently operating with a 750-foot runway lateral clear zone, which was established under previous standards.
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3. In addition, Dyess AFB is proposing to obtain easements (totaling 21.9 acres) on the northwest side of the airfield to prevent potential, future airfield obstructions.
4. As part of the environmental analysis, Dyess AFB, or its contractor, Aerostar Environmental Services, Inc., may contact you during data collection efforts. In advance, we thank you for your assistance in this activity. If you have any questions relative to this proposal, please don't hesitate to contact me at (325) 696-5664.

DAVID E. LAURENCE, P.G.  
Chief of Environmental

Attachment:  
Location Map of Proposed Action



DEPARTMENT OF THE AIR FORCE  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Dr. Alfredo Armendariz  
Regional Administrator  
U.S. Environmental Protection Agency, Region VI  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE, P.G.  
Chief of Environmental

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**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Mr. Toby Baker  
Governor's Advisor – Natural Resources and Agriculture  
Office of the Governor  
P.O. Box 12428  
Austin, Texas 78711

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE, P.G.  
Chief of Environmental

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**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Judge Downing A. Bolls, Jr.  
Taylor County Commissioner's Court  
300 Oak Street, Suite 200  
Abilene, Texas 79602

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE, P.G.  
Chief of Environmental

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Location Map of Proposed Action



DEPARTMENT OF THE AIR FORCE  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Ms. Kathy Boydston  
Habitat Assessment Program Coordinator  
Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, Texas 78744

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE  
Chief of Environmental

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**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR The Honorable Nancy Moore  
Mayor of Tye  
P.O. Box 369  
Tye, Texas 79563-0369

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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*David E. Lawrence*  
DAVID E. LAURENCE, P.G.  
Chief of Environmental

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DEPARTMENT OF THE AIR FORCE  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Ms. Tangela Niemann  
Intergovernmental Reviewer  
Texas Commission on Environmental Quality  
P.O. Box 13087 MC 119  
Austin, Texas 78711-3087

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE, P.G.  
Chief of Environmental

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Location Map of Proposed Action



**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Mr. Mark Wolfe  
Executive Director – Texas Historical Commission  
State Historic Preservation Officer  
P.O. Box 12276  
Austin, Texas 78711-2276

DATE: July 8, 2011

FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607

SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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**DEPARTMENT OF THE AIR FORCE**  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

MEMORANDUM FOR Mr. Adam Zerrenner  
Field Supervisor - Austin Ecological Services Field Office  
U.S. Fish and Wildlife Service  
10711 Burnet Road, Suite 200  
Austin, Texas 78758

DATE: July 8, 2011  
FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607  
SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

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DAVID E. LAURENCE, P.G.  
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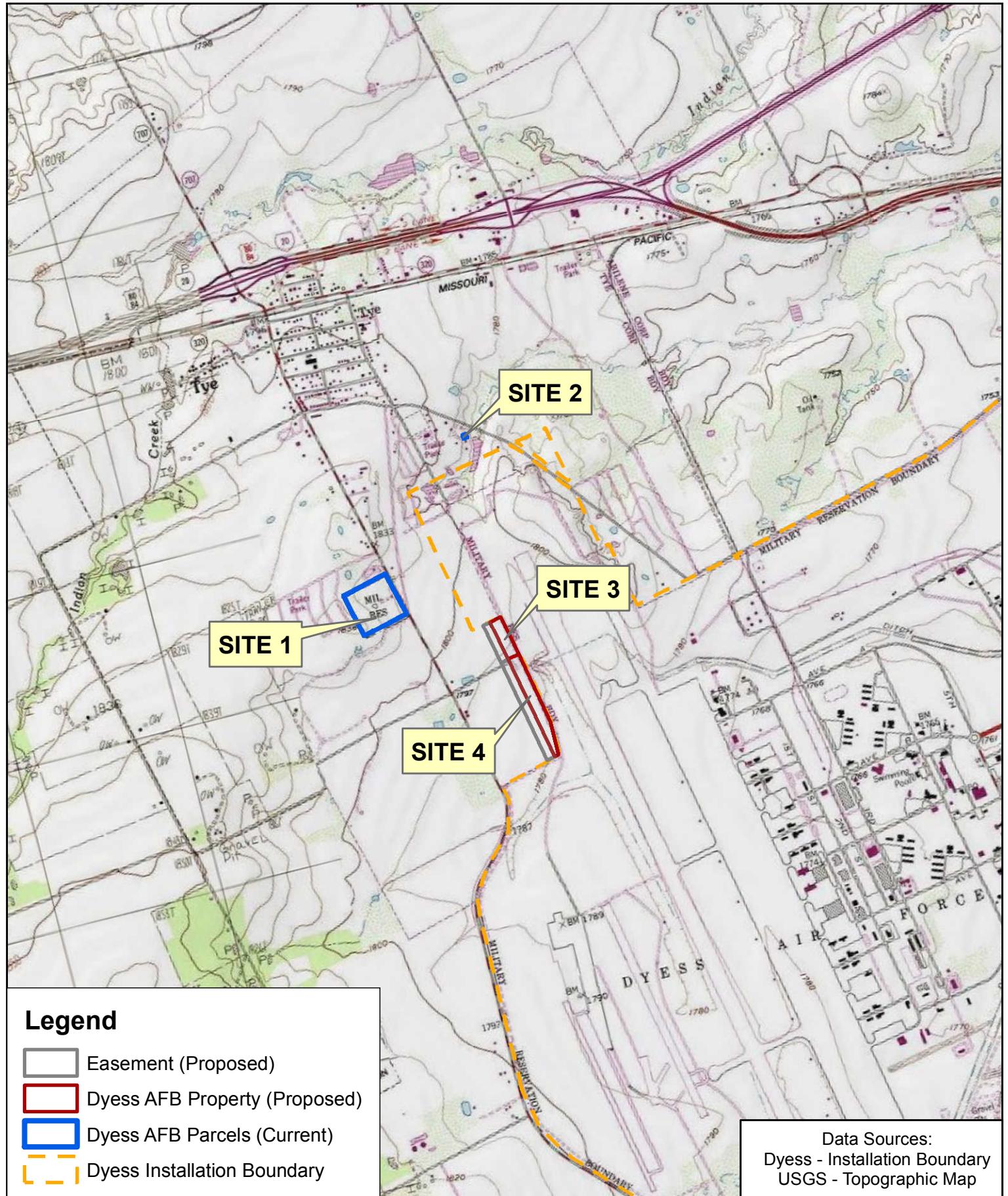


FIGURE 1: MAP OF PROPOSED ACTION SITE LOCATIONS



0 500 1,000 2,000 3,000 4,000 Feet

Land Exchange  
Environmental Assessment  
Dyess Air Force Base, Texas

## **APPENDIX C**

This Environmental Baseline Survey (EBS) was requested by Real Property to support the disposal of the Dyess Communications Annex Transmitter, Building 1001. The overall purpose of the survey is to document the nature, magnitude, and extent of any environmental contamination of the property prior to its disposal.

This EBS is based on information obtained through a records search and review, personnel interviews, analyzing historical aerial photographs of the site, and a visual site inspection of the subject and adjacent properties. The records search included a review of all available Air Force documents. These records include environmental restoration and compliance reports, audits, surveys, inspection reports, and a review of real estate documents for the subject property. This EBS contains an overview of the environmental setting of the subject property and includes a comprehensive audit of the property and adjacent areas. Also included in this report is an assessment of the environmental condition of the subject property as well as the properties immediately adjacent that could pose environmental concern or affect the subject property. This survey satisfies the requirements for an EBS as outlined in Air Force Instruction (AFI) 32-7066, *Environmental Baseline Surveys in Real Estate Transactions* and involves only those tasks stated in Section 2, Survey Methodology, of this report. This report also follows the guidelines set out in the American Society for Testing and Materials (ASTM) Guide D 6008-96, which outlines the practices for conducting environmental baseline surveys.

Based on the information and recommendations contained in this EBS, there appear to be no known environmental liabilities associated with the proposed disposal of Building 1001. The findings and recommendations of the site inspection are summarized in Table ES-1.

# Executive Summary

Transmitter Building (Site 1)

Table ES-1. Summary of Findings and Recommendations

Environmental Contamination	Findings	Recommended Actions
Hazardous Substances, Hazardous Materials and Petroleum Products, and Hazardous and Petroleum Waste	No evidence found of current storage or production of any hazardous substances, materials, or petroleum products.	No Action Required
Above Ground Storage Tanks	No evidence found of current or historical presence of above ground storage tanks.	No Action Required
Underground Storage Tanks (USTs)	Old underground storage tanks were removed in 1991, and the site was approved for closure by the Texas Natural Resource Conservation Commission (TNRCC*).	No Action Required
Oil/Water Separators	No evidence found of current or historical presence of oil/water Separators.	No Action Required
Pesticides/Herbicides	No evidence found of current storage of any pesticides/herbicides.	No Action Required
Medical and Biohazardous Waste	No evidence found of current or historical presence/disposal of medical and biohazardous waste.	No Action Required
Radioactive Waste	No evidence found of current or historical presence/disposal of radioactive waste.	No Action Required
Groundwater	No groundwater wells were observed on the subject property.	No Action Required
Wastewater Treatment, Collection, and Discharge	No wastewater treatment is performed on-site.	No Action Required
Asbestos Containing Materials (ACM)	The facility on this site was constructed prior to 1980**; therefore the facility is classified as having presumed asbestos-containing material (PACM).	Asbestos sampling required; if present, abatement is necessary prior to demolition.
Polychlorinated Biphenyls (PCBs)	Site has many fluorescent lights that may contain PCB ballasts. Site contains transformers that contain PCBs at levels below the 50 ppm regulation.	Properly dispose of light fixture ballasts.
Radon	No site-specific radon testing performed, and the Environmental Protection Agency area is categorized as having a low radon potential.	No Action Required
Lead-Based Paint	The facility on this site was built prior to 1980; therefore it is assumed the facility will have some lead based paint.	No Action Required

\* Texas Commission Environmental Quality formerly known as Texas Natural Resource Conservation Commission.

\*\* Any building built prior to 1980 is classified as containing presumed asbestos containing material (PACM) per Occupational Safety and Health Administration (OSHA), Code of Federal Regulations (CFR) Part 1910.1001.

This Environmental Baseline Survey (EBS) was requested by Real Property to support the decommissioning of the Dyess Instrument Landing System (ILS) Middle Marker Annex 02 (North Middle Marker). The overall purpose of the survey is to document the nature, magnitude, and extent of any environmental contamination of the property prior to its disposal.

This Environmental Baseline Survey is based on information obtained through a records search and review, personnel interviews, analyzing historical aerial photographs of the site, and a visual site inspection of the subject and adjacent properties. The records search included a review of all available Air Force documents. These records include environmental restoration and compliance reports, audits, surveys, inspection reports, and a review of real estate documents for the subject property. This EBS contains an overview of the environmental setting of the subject property and includes a comprehensive audit of the property and adjacent areas. Also included in this report is an assessment of the environmental condition of the subject property as well as the properties immediately adjacent that could pose environmental concern or affect the subject property. This survey satisfies the requirements for an EBS as outlined in Air Force Instruction (AFI) 32-7066, *Environmental Baseline Surveys in Real Estate Transactions* and involves only those tasks stated in Section 2, Survey Methodology, of this report. This report also follows the guidelines set out in the American Society for Testing and Materials (ASTM) Guide D 6008-96, which outlines the practices for conducting environmental baseline surveys.

Based on the information and recommendations contained in this Environmental Baseline Survey, there appear to be no known environmental liabilities associated with the proposed decommissioning of the North Middle Marker. The findings and recommendations of the site inspection are summarized in Table ES-1.

Table ES-1. Summary of Findings and Recommendations

Environmental Contamination	Findings	Recommended Actions
Hazardous Substances, Hazardous Materials and Petroleum Products, and Hazardous and Petroleum Waste	No evidence found of current or historical presence of petroleum products, or hazardous petroleum waste.	No Action Required
Above Ground Storage Tanks	No evidence found of current or historical presence of above ground storage tanks.	No Action Required
Underground Storage Tanks	No evidence found of current or historical presence of underground storage tanks.	No Action Required
Oil/Water Separators	No evidence found of current or historical presence of oil/water separators.	No Action Required
Pesticides/Herbicides	No evidence found of current storage of any pesticides/herbicides.	No Action Required
Medical and Biohazardous Waste	No evidence found of current or historical presence/disposal of medical and biohazardous waste.	No Action Required
Radioactive Waste	No evidence found of current or historical presence/disposal of radioactive waste.	No Action Required
Groundwater	No groundwater wells were observed on the subject property.	No Action Required
Wastewater Treatment, Collection, and Discharge	No wastewater treatment is performed on-site.	No Action Required
Asbestos Containing Materials (ACM)	There was no evidence of buildings or piping containing asbestos ever being located on the site.	No Action Required
Polychlorinated Biphenyls (PCBs)	No evidence found of current or historical presence of PCBs.	No Action Required
Radon	No site-specific radon testing performed, and the Environmental Protection Agency area is categorized as having a low radon potential.	No Action Required
Lead-Based Paint	There was no evidence of buildings or structures ever being painted on this site.	No Action Required

This Environmental Baseline Survey (EBS) was requested by Real Property Section of Resources Flight. The purpose of this EBS was to document environmental conditions of the properties on the west perimeter of the base currently owned by Ashenfelter and Milliorn. Dyess AFB would like to obtain the property to ensure ownership of all property in the clear zone to the west of the main runway. This EBS fulfills the requirements for said property transfer. This EBS is intended to serve as a baseline for the property acquisition and also serves to document the nature, magnitude, and extent of any environmental liability, hazards and/or contamination of the properties.

The information contained herein is based on records search and review, personnel interviews, analysis of historical aerial photographs of each parcel of land, and a visual site inspection (VSI) of the subject and adjacent properties. The records search included a review of all pertinent AF documents. This EBS contains an overview of the environmental setting of the subject properties and includes an audit of the properties and adjacent areas. Also included in this report is an assessment of the environmental condition of the subject properties as well as the properties immediately adjacent that could pose environmental concern or affect the subject properties. This survey was accomplished following the guidance of American Society for Testing and Materials (ASTM) D6008-96, *Standard Practice for Conducting Environmental Baseline Surveys*, satisfies the requirements for an EBS as outlined in Air Force Instruction (AFI) 32-7066, *Environmental Baseline Surveys in Real Estate Transactions* and involves only those tasks stated in Section 2, Survey Methodology, of this report.

The findings and recommendations of the site inspection are summarized in Table ES-1.

# EXECUTIVE SUMMARY

## Agricultural Fields (Sites 3 and 4)

Table ES-1. Summary of Findings and Recommendations

Environmental Contamination	Findings	Recommended Actions
Hazardous Substances, Hazardous Materials and Petroleum Products, and Hazardous and Petroleum Waste *	Evidence was found of historical presence of hazardous petroleum substances, on the Milliorn parcel.	No action required. (See note.)
Aboveground Storage Tanks (ASTs)	Evidence was found of historical presence of ASTs on the Milliorn parcel.	ASTs have been removed for 43 years. No action required.
Underground Storage Tanks (USTs) **	Evidence was found of historical presence of USTs located within ½ mile of either parcel of land (See Appendix A-2). There was 1 leak reported to TCEQ. The site was monitored and granted closure by TCEQ via a letter dated July 27, 2004. (See Appendix D-3)	4 300-gallon Ethylene Glycol, 1 10,000-gal Gas and 1 10,000 gal diesel tank(s) were all removed on 10/30/89 according to the TCEQ database. The reported leaking UST site was monitored and closed by TCEQ in 2004. No action required.
Oil/Water Separators (OWSs) **	No Evidence was found of historical presence of oil/water separator (OWS) on either parcel of land.	No action required.
Pesticides/Herbicides	Evidence found of current and historical use of pesticides/herbicides on both parcels of land.	Legal agricultural use of pesticides and herbicides are assumed. No action required.
Medical and Bio-hazardous Waste	No evidence found of current or historical presence/disposal of medical and bio-hazardous waste.	No action required.
Radioactive Materials and Waste	No evidence found of current or historical presence/disposal of radioactive materials or waste.	No action required.
Groundwater	No groundwater wells are located on either property being acquired.	No action required.
Wastewater Treatment, Collection, and Discharge	No evidence of present discharge of wastewater.	No action required.
Asbestos Containing Materials (ACM)	Not applicable for acquisition of farm land without structures.	No action required.
Polychlorinated Biphenyls (PCBs)	Not applicable for acquisition of farm land without power lines.	No action required.
Radon	Not applicable for acquisition of farm land.	No action required.
Lead-Based Paint (LBP)****	Not applicable for acquisition of farm land without structures.	No action required.

\* Since both parcels of land are used for agricultural purposes routine use of herbicides and pesticides is expected on both properties. In addition historical photographs of the Milliorn parcel show several farm buildings which were demolished prior to 1964. It is assumed that ASTs containing fuels for farm machinery use would have been on the Milliorn property, thus prior to 1964 fuels were probably stored there. At this point in time nothing remains of the farm structures and the area is plowed over.

\*\* There are no USTS or OWS on the property being acquired, however there is a gas producing well on the Milliorn parcel within ½ mile of the land being acquired which has an AST associated with the natural gas well. There was also evidence found of the historical presence of USTs located within ½ mile of either parcel of land and they were all removed in 1989. A LPST was reported to TCEQ in 1989 , the ground water was impacted but there were no apparent threats or impacts to receptors. The site was monitored and granted closure by TCEQ via a letter dated July 27, 2004. (See Appendix D-3).

Land Use Deed Restrictions Land-Swap Parcels:

Site 1

- No structures taller than 90 feet above ground level. The inner horizontal surface is above this parcel. This surface is 150 feet above airfield elevation (1789' MSL) or at 1939' MSL. According to our GIS contours, the highest point on the site is near the south west corner of the parcel at 1838' MSL. Therefore a 90' tower would be at 1928' MSL or just 10' below the obstruction surface.
- No residential development with “residential” being defined as: All types of residential activity, such as single and multiple family residences and mobile homes, at a density greater than one dwelling per acre. (Dyess AFB AICUZ, October 2008, Paragraph 4.1)
- No hospitals, nursing homes, or educational facilities.
- No Churches, auditoriums, outdoor music venues, sports arenas, or amusement parks.
- No uses that release into the air any substance, such as steam, dust, or smoke, which would impair visibility or otherwise interfere with the operation of aircraft.
- No uses that produce light emissions, either direct or indirect (reflective), which would interfere with pilot vision.
- No uses that produce electrical emissions which would interfere with aircraft communication systems or navigation equipment.
- No uses that attract birds or waterfowl, such as operation of sanitary landfills, maintenance or feeding stations, or growth of certain vegetation.

Site 2

- No uses that release into the air any substance, such as steam, dust, or smoke, which would impair visibility or otherwise interfere with the operation of aircraft.
- No uses that produce light emissions, either direct or indirect (reflective), which would interfere with pilot vision.
- No uses that produce electrical emissions which would interfere with aircraft communication systems or navigation equipment.
- No uses that attract birds or waterfowl, such as operation of sanitary landfills, maintenance or feeding stations, or growth of certain vegetation.
- No structures taller than 50 feet above ground level. The approach departure clearance surface is approximately 66 feet above ground level at the site.

## **APPENDIX D**

October 9, 2008



Mr. F. Lawrence Oaks, SHPO  
The Texas Historical Commission  
1511 Colorado Avenue  
Austin, TX 78701

NO HISTORIC  
PROPERTIES AFFECTED  
PROJECT MAY PROCEED

By William A. Mathis  
for F. Lawrence Oaks  
State Historic Preservation Officer

Date 11/14/08

**RE: DYESS AIR FORCE BASE, ~~DISPOSITION OF COMMUNICATION ANNEX~~  
TRANSMITTER BUILDING 1001 AND INSTRUMENT LANDING SYSTEM MIDDLE  
MARKER ANNEX 02, TAYLOR COUNTY, TEXAS**

Dear Mr. Oaks:

Dyess Air Force Base (AFB) is proposing to exchange two pieces of excess property for land adjacent to the AFB that will provide for an increase in the lateral clear zone. URS Corporation (URS), is acting on behalf of the U.S. Army Corps of Engineers, Omaha District, to solicit your review of this project, under the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

The project involves the exchange of two pieces of real property currently owned by Dyess AFB and described as Communication Annex Transmitter Building 1001 (identified as US Gov Parcel, 20 Acres on the enclosed figure) and Instrument Landing System (ILS) Middle Marker Annex 02 (identified as US Gov Parcel, Old Equipment Site, .13 Acres on the enclosed figure). Aerial and ground-level photographs of these facilities are also enclosed.

Building 1001, a transmitter station located at County Road 309, was constructed in 1957. The building has a reinforced concrete foundation, concrete walls, and a wooden frame built-up tar and gravel roof. This building was used as a transmitter station for Dyess AFB and the Abilene Regional Airport. The area surrounding the building is open field land, not used for farming or any industry. The ILS Middle Marker is a solid state ILS that was constructed in 1977 and utilized until 1999. Dyess AFB annexed the location of the ILS in 1958. The ILS contains multiple concrete footings and several discarded utility poles. The area is surrounded by a chain link style fence with protective barbed wire lining the top.

These properties would be exchanged for two parcels of vacant lands adjacent to the main runway that will remain undeveloped to provide for expanded clear zone. These parcels are identified as Ashenfelter Acres (5) Required w/ "No Obstacle" Protection and Milliorn Acres (11) Required w/ "No Obstacle" Protection on the enclosed figure.



It is our recommendation that no historic properties will be affected by the proposed land exchange and we recommend that it be allowed to proceed without additional cultural resources investigations. We respectfully seek your concurrence with these recommendations.

If you have any questions or need additional information, please do not hesitate to contact me at (303) 796-4617. Thank you.

Sincerely,

**URS CORPORATION**

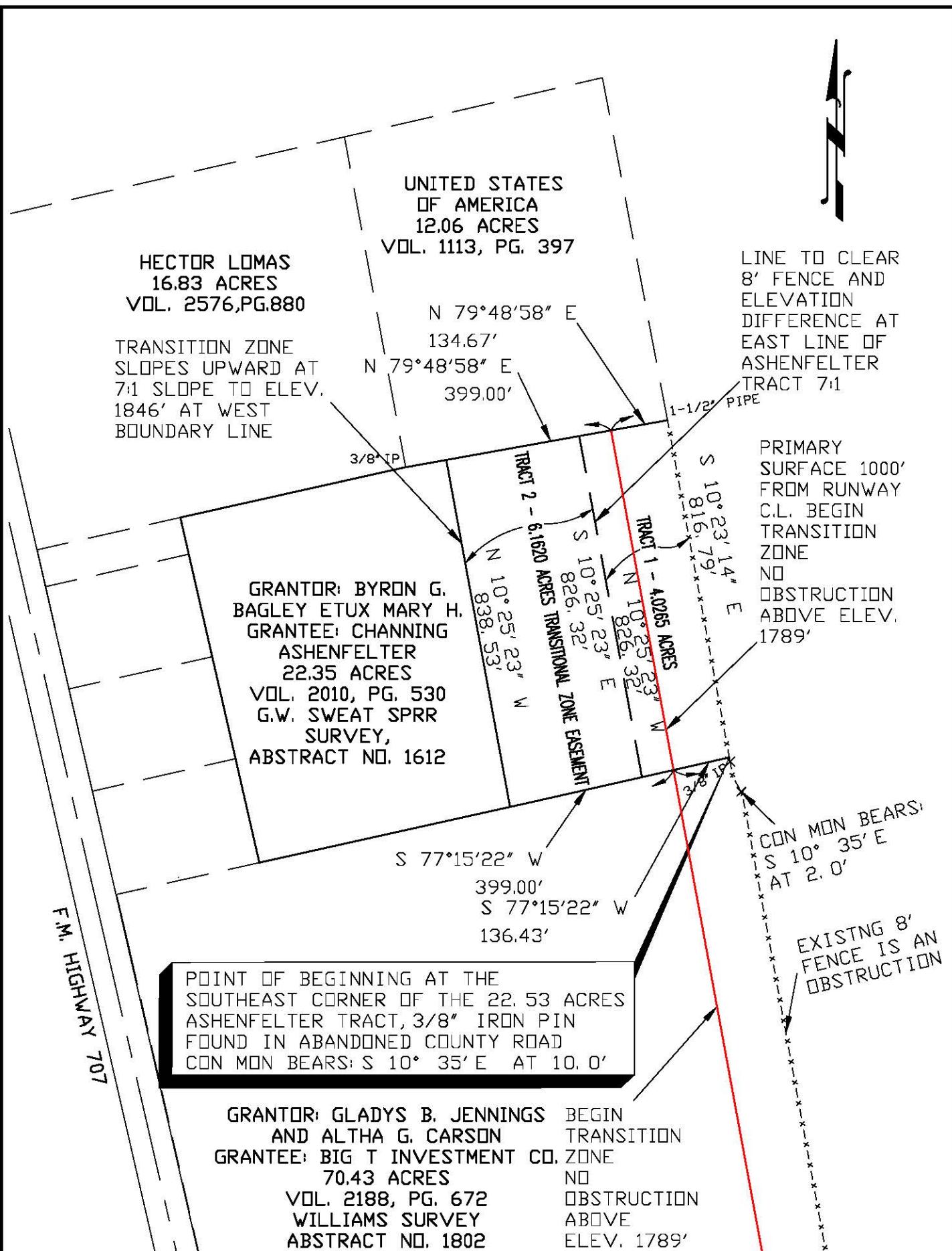
A handwritten signature in blue ink, appearing to read "R. Mutaw".

Robert J. Mutaw, Ph.D.  
Cultural Resources Team Leader.

Attachments

cc: Brian Osborn, URS

## **APPENDIX E**



AREA WITHIN TRACT 1 NO OBSTRUCTION EASEMENT

ASHENFELTER PROPERTY: 4.0265 ACRES

AREA WITHIN TRACT 2 TRANSITIONAL ZONE EASEMENT

ASHENFELTER PROPERTY: 6.1620 ACRES

AIRPORT INFORMATION

DYESS AIR FORCE BASE (KDX) RUNWAY 16/34  
13,500 X 300 FEET AT ELEV. 1789 FEET MSL.  
INFORMATION REFERENCED FROM FAA AIRPORT  
DIAGRAM DATED SC-2, 1/17/08 TO 2/14/08.

TED B. HARP, SR.  
REGISTERED PROFESSIONAL LAND SURVEYOR  
NO. 2002

CENTERLINE OF RUNWAY COORDINATES  
PROVIDED BY DYESS AIR FORCE BASE PERSONNEL.  
ALL OTHER DATA BY GPS SURVEY AND REFERENCED  
TO TEXAS STATE PLANE COORDINATE  
SYSTEM GRID, NORTH CENTRAL ZONE 4202.

REV.	DATE	BY	DESCRIPTION	CHK.	THP	LAND REQUIREMENT FOR 50' VERTICAL CLEARANCE ZONE DYESS AIR FORCE BASE		
PROJECT NO.								
1	2/27/08	BBB	ADJUSTED NO OBSTRUCTION LINE			TAYLOR COUNTY,	TEXAS	
						DRAWN BY: BBB	DATE: 2-27-08	DWG. NO.
						CHECKED BY: TBH	DATE: 2-27-08	REV.
						SCALE: 1"=300'	APP.:	LEGAL DESCRIPTION
								1



LIS Survey Technologies, Inc.  
401 Jim Wright Freeway South, Ste. 403  
Fort Worth, TX 76108, 817-246-5900

GRANTOR: BYRON G. BAGLEY  
ETUX MARY H. GRANTEE:  
CHANNING ASHENFELTER  
22.35 ACRES  
VOL. 2010, PG. 530  
G.W. SWEAT SPRR SURVEY,  
ABSTRACT NO. 1612

N 77°15'22" E  
399.00

LINE TO CLEAR  
8' FENCE AND  
ELEVATION  
DIFFERENCE AT  
EAST LINE OF  
BIG T TRACT  
7:1 (77')

GRANTOR: GLADYS B. JENNINGS  
AND ALTHA G. CARSON  
GRANTEE: BIG T INVESTMENT CO.  
70.43 ACRES  
VOL. 2188, PG. 672  
WILLIAMS SURVEY  
ABSTRACT NO. 1802

TRANSITION ZONE  
SLOPES UPWARD AT  
7:1 SLOPE TO ELEV.  
1846' AT WEST  
BOUNDARY LINE

F.M. HIGHWAY 707

POINT OF BEGINNING AT THE  
SOUTHEAST CORNER OF THE 70.43  
BIG T INVESTMENTS TRACT, N 76° 08' E  
1 FOOT FROM FOUND CONCRETE  
MONUMENT/DISK.

S 76°55'52" W  
399.00'

S  $76^{\circ}55'25''$  W  
1286.74

S 76°55'52" W  
18.47'

AREA WITHIN TRACT 1 NO OBSTRUCTION EASEMENT  
BIG T INVESTMENTS PROPERTY: 10.0931 ACRES  
AREA WITHIN TRACT 2 TRANSITIONAL ZONE EASEMENT

**BIG T INVESTMENTS PROPERTY: 15.7473 ACRES**

## AIRPORT INFORMATION

DYEYSS AIR FORCE BASE (KDYS) RUNWAY 16/34  
13,500 X 300 FEET AT ELEV. 1789 FEET MSL  
INFORMATION REFERENCED FROM FAA AIRPORT  
DIAGRAM DATED SC-2, 1/17/08 TO 2/14/08.

**TED B. HARP, SR.  
REGISTERED PROFESSIONAL LAND SURVEYOR  
NO. 2002**

CENTERLINE OF RUNWAY COORDINATES  
PROVIDED BY DYESS AIR FORCE BASE PERSONNEL.  
ALL OTHER DATA BY GPS SURVEY AND REFERENCED  
TO TEXAS STATE PLANE COORDINATE  
SYSTEM GRID, NORTH CENTRAL ZONE 4202.

DIAGRAM DATED SC-2, 1/17/08 TO 2/14/08.				
REV.	DATE	BY	DESCRIPTION	CHK
1	2/27/08	BBB	ADJUSTED NO OBSTRUCTION LINE	THP

**LAND REQUIREMENT FOR 50' VERTICAL CLEARANCE ZONE  
DYESS AIR FORCE BASE**

**TAMPA COUNTY**

TEXAS



LIS Survey Technologies, Inc.  
401 Jim Wright Freeway South, Ste. 403  
Fort Worth, TX 76108 817-246-5900

TATELOR COUNTY,		TEXAS	
DRAWN BY: BBB	DATE: 2-27-08	DWG. NO.	REV.
CHECKED BY: TBH	DATE: 2-27-08	LEGAL DESCRIPTION	
SCALE: 1"=300'	APP:	1	

## **APPENDIX F**



United States  
Department of  
Agriculture



NRCS  
Natural  
Resources  
Conservation  
Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Taylor County, Texas



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcc>) or your NRCS State Soil Scientist ([http://soils.usda.gov/contact/state\\_offices/](http://soils.usda.gov/contact/state_offices/)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

## Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

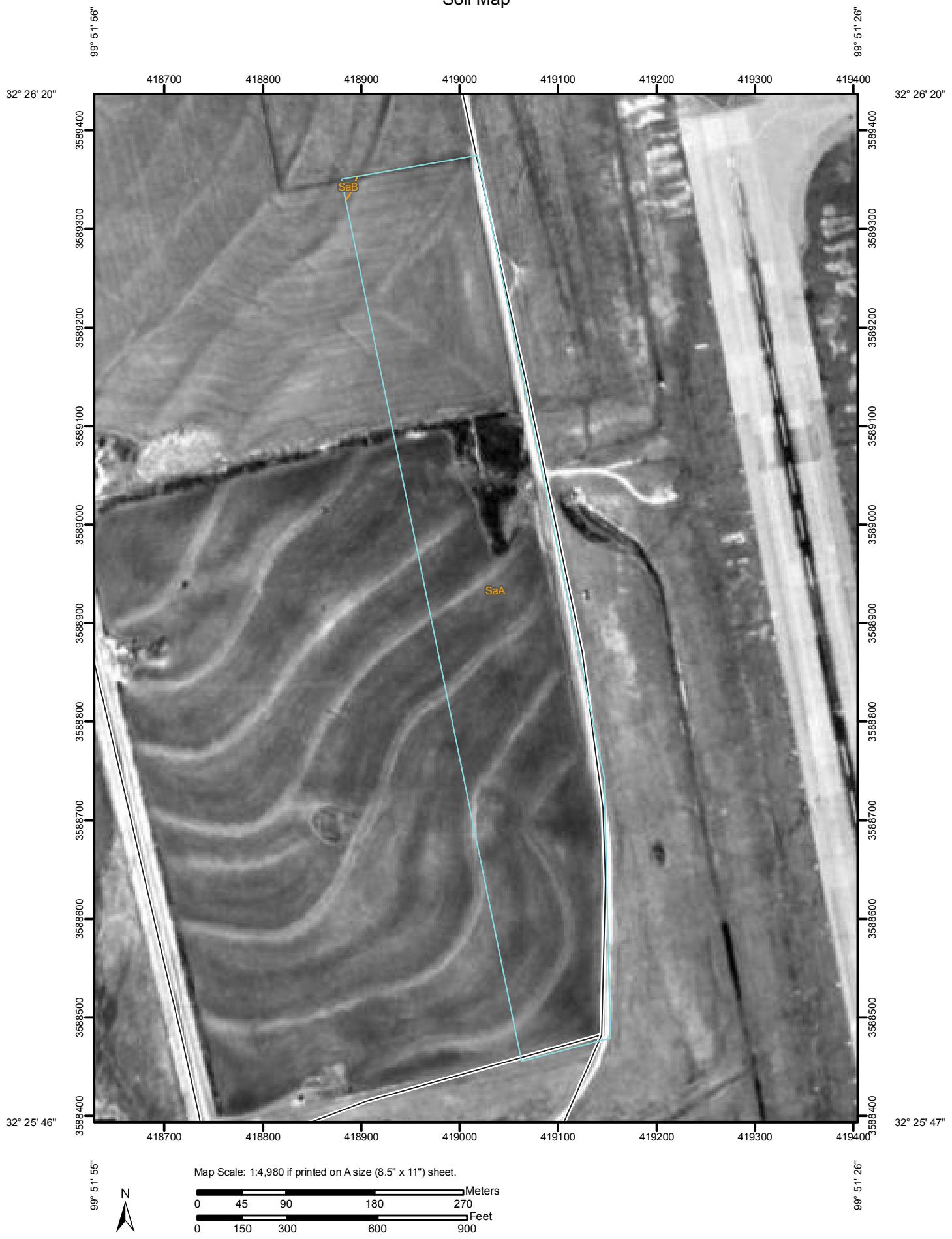
# **Soil Map**

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report

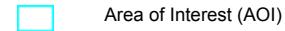
## Soil Map



## Custom Soil Resource Report

### MAP LEGEND

#### Area of Interest (AOI)



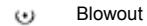
Area of Interest (AOI)

#### Soils



Soil Map Units

#### Special Point Features



Blowout



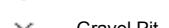
Borrow Pit



Clay Spot



Closed Depression



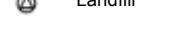
Gravel Pit



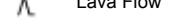
Gravelly Spot



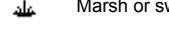
Landfill



Lava Flow



Marsh or swamp



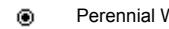
Mine or Quarry



Miscellaneous Water



Perennial Water



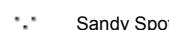
Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



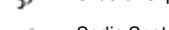
Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot

#### Very Stony Spot



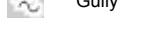
Very Stony Spot

#### Wet Spot



Wet Spot

#### Other



Other

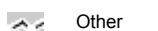
#### Special Line Features



Gully

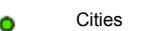


Short Steep Slope



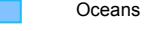
Other

#### Political Features

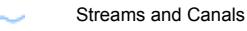


Cities

#### Water Features



Oceans



Streams and Canals

#### Transportation



Rails



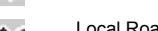
Interstate Highways



US Routes



Major Roads



Local Roads

### MAP INFORMATION

Map Scale: 1:4,980 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 14N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Taylor County, Texas

Survey Area Data: Version 6, Oct 26, 2009

Date(s) aerial images were photographed: 1995

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Taylor County, Texas (TX441)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SaA	Sagerton clay loam, 0 to 1 percent slopes	29.9	99.8%
SaB	Sagerton clay loam, 1 to 3 percent slopes	0.0	0.2%
<b>Totals for Area of Interest</b>		<b>30.0</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Taylor County, Texas

### SaA—Sagerton clay loam, 0 to 1 percent slopes

#### Map Unit Setting

*Elevation:* 1,600 to 2,150 feet  
*Mean annual precipitation:* 20 to 28 inches  
*Mean annual air temperature:* 62 to 66 degrees F  
*Frost-free period:* 215 to 235 days

#### Map Unit Composition

*Sagerton and similar soils:* 85 percent  
*Minor components:* 15 percent

#### Description of Sagerton

##### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Mixed clayey alluvium

##### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Maximum salinity:* Nonsaline (0.0 to 2.0 mmhos/cm)  
*Available water capacity:* Moderate (about 6.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 1  
*Land capability (nonirrigated):* 2c  
*Ecological site:* Clay Loam 23-30" PZ (R078CY096TX)

##### Typical profile

*0 to 11 inches:* Clay loam  
*11 to 33 inches:* Clay  
*33 to 80 inches:* Clay loam

#### Minor Components

##### Unnamed, minor components

*Percent of map unit:* 15 percent

## SaB—Sagerton clay loam, 1 to 3 percent slopes

### Map Unit Setting

*Elevation:* 1,600 to 2,150 feet  
*Mean annual precipitation:* 20 to 28 inches  
*Mean annual air temperature:* 62 to 66 degrees F  
*Frost-free period:* 215 to 235 days

### Map Unit Composition

*Sagerton and similar soils:* 85 percent  
*Minor components:* 15 percent

### Description of Sagerton

#### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Mixed clayey alluvium

#### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Maximum salinity:* Nonsaline (0.0 to 2.0 mmhos/cm)  
*Available water capacity:* Moderate (about 6.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2e  
*Land capability (nonirrigated):* 2e  
*Ecological site:* Clay Loam 23-30" PZ (R078CY096TX)

#### Typical profile

*0 to 11 inches:* Clay loam  
*11 to 42 inches:* Clay loam  
*42 to 80 inches:* Clay loam

### Minor Components

#### Unnamed, minor components

*Percent of map unit:* 15 percent

## Custom Soil Resource Report

# References

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## Custom Soil Resource Report

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

## **APPENDIX G**

## Notes for County Lists of Texas' Special Species

The Texas Parks and Wildlife (TPWD) county lists **include**:

**Vertebrates, Invertebrates, and Vascular Plants** identified as being of conservation concern by TPWD within Texas. These special species lists are comprised of species, subspecies, and varieties that are federally listed; proposed to be federally listed; have federal candidate status; are state listed; or carry a global conservation status indicating a species is critically imperiled, very rare, vulnerable to extirpation, or uncommon.

The TPWD county lists **do not include**:

**Natural Plant Communities** such as Little Bluestem-Indiangrass Series (native prairie remnant), Water Oak-Willow Oak Series (bottomland hardwood community), Saltgrass-Cordgrass Series (salt or brackish marsh), Sphagnum-Beakrush Series (seepage bog).

**Other Significant Features** such as bird rookeries, migratory songbird fallout areas, comprehensive migratory bird information, bat roosts, bat caves, invertebrate caves, and prairie dog towns.

**These lists are not all inclusive for all rare species distributions.** The lists were compiled, developed, and are updated based on field guides, staff expertise, scientific publications, and the TPWD Texas Natural Diversity Database (TXNDD) (formerly the Biological and Conservation Data System) occurrence data. Historic ranges for some state extirpated species, full historic distributions for some extant species, accidentals and irregularly appearing species, and portions of migratory routes for particular species are not necessarily included. Species that appear on county lists do not all share the same probability of occurrence within a county. Some species are migrants or wintering residents only. Additionally, a few species may be historic or considered extirpated within a county.

TPWD includes the Federal listing status for your convenience and makes every attempt to keep the information current and correct. However, the US Fish and Wildlife Service (FWS) is the responsible authority for Federal listing status. The TPWD lists do not substitute for contact with the FWS and federally listed species county ranges may vary from the FWS county level species lists because of the inexact nature of range map development and use.

**Status Key:**

LE, LT -	Federally Listed Endangered/Threatened
PE, PT -	Federally Proposed Endangered/Threatened
SAE, SAT -	Federally Listed Endangered/Threatened by Similarity of Appearance
C -	Federal Candidate for Listing; formerly Category 1 Candidate
DL, PDL -	Federally Delisted/Proposed for Delisting
NL -	Not Federally Listed
E, T -	State Listed Endangered/Threatened
NT -	Not tracked or no longer tracked by the State
"blank" -	Rare, but with no regulatory listing status

This information is specifically for your assistance only; due to continuing data updates, **please do not redistribute the lists**, instead refer all requesters to the web site at:

[http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered\\_species/](http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species/) or to our office for the most current information available. For questions regarding county lists, please call (512) 389-4571.

Please use the following citation to credit the source for this county level information:

Texas Parks and Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs. County Lists of Texas' Special Species. [county name(s) and revised date(s)].

## TAYLOR COUNTY

### BIRDS

		Federal Status	State Status
<b>American Peregrine Falcon</b>	<i>Falco peregrinus anatum</i>	DL	T
year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.			
<b>Arctic Peregrine Falcon</b>	<i>Falco peregrinus tundrius</i>	DL	
migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.			
<b>Baird's Sparrow</b>	<i>Ammodramus bairdii</i>		
shortgrass prairie with scattered low bushes and matted vegetation; mostly migratory in western half of State, though winters in Mexico and just across Rio Grande into Texas from Brewster through Hudspeth counties			
<b>Bald Eagle</b>	<i>Haliaeetus leucocephalus</i>	DL	T
found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds			
<b>Black-capped Vireo</b>	<i>Vireo atricapilla</i>	LE	E
oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer			
<b>Ferruginous Hawk</b>	<i>Buteo regalis</i>		
open country, primarily prairies, plains, and badlands; nests in tall trees along streams or on steep slopes, cliff ledges, river-cut banks, hillsides, power line towers; year-round resident in northwestern high plains, wintering elsewhere throughout western 2/3 of Texas			
<b>Mountain Plover</b>	<i>Charadrius montanus</i>	PT	
breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous			
<b>Peregrine Falcon</b>	<i>Falco peregrinus</i>	DL	T
both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies ( <i>F. p. anatum</i> ) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, <i>F.p. tundrius</i> is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.			

## TAYLOR COUNTY

### BIRDS

Federal Status      State Status

<b>Snowy Plover</b>	<i>Charadrius alexandrinus</i>		
formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast			
<b>Sprague's Pipit</b>	<i>Anthus spragueii</i>	C	
only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.			
<b>Western Burrowing Owl</b>	<i>Athene cunicularia hypugaea</i>		
open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows			
<b>Western Snowy Plover</b>	<i>Charadrius alexandrinus nivosus</i>		
uncommon breeder in the Panhandle; potential migrant; winter along coast			
<b>Whooping Crane</b>	<i>Grus americana</i>	LE	E
potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties			

### MAMMALS

Federal Status      State Status

<b>Black-tailed prairie dog</b>	<i>Cynomys ludovicianus</i>		
dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle; live in large family groups			
<b>Cave myotis bat</b>	<i>Myotis velifer</i>		
colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow ( <i>Hirundo pyrrhonota</i> ) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore			
<b>Gray wolf</b>	<i>Canis lupus</i>	LE	E
extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands			
<b>Plains spotted skunk</b>	<i>Spilogale putorius interrupta</i>		
catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie			
<b>Red wolf</b>	<i>Canis rufus</i>	LE	E
extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies			

### REPTILES

Federal Status      State Status

<b>Spot-tailed earless lizard</b>	<i>Holbrookia lacerata</i>
-----------------------------------	----------------------------

## TAYLOR COUNTY

### REPTILES

Federal Status      State Status

central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground

**Texas horned lizard**                  *Phrynosoma cornutum*                  T  
open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

### PLANTS

Federal Status      State Status

**Warnock's coral-root**                  *Hexalectris warnockii*  
in leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under *Quercus fusiformis* mottes on terraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years

## **APPENDIX H**

## Texas Horned Lizard (*Phrynosoma cornutum*)

**OTHER NAMES**

Horny Toad

**TEXAS STATUS**

Threatened

**DESCRIPTION**

The Texas horned lizard or "horny toad" is a flat-bodied and fierce-looking lizard. The head has numerous horns, all of which are prominent, with two central head spines being much longer than any of the others.

This lizard is brownish with two rows of fringed scales along each side of the body.

On most Texas horned lizards, a light line

can be seen extending from its head down the middle of its back. It is the only species of horned lizard to have dark brown stripes that radiate downward from the eyes and across the top of the head.



Photo ©TPWD

**HABITAT**

They can be found in arid and semiarid habitats in open areas with sparse plant cover. Because horned lizards dig for hibernation, nesting and insulation purposes, they commonly are found in loose sand or loamy soils.

**DISTRIBUTION**

Texas horned lizards range from the south-central United States to northern Mexico, throughout much of Texas, Oklahoma, Kansas and New Mexico.

**OTHER**

The Texas horned lizard currently is listed as a threatened species in Texas (federal category C2).



Photo ©TPWD

#### For more information

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Check Parks and Wildlife's [Texas Horned Lizard Watch](#) for programs and monitoring activities.

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[About TPWD](#) | [Contact Us](#) | [Accessibility](#) | [Site Policies](#) | [Complaints](#) | [Intranet](#) | [TRAILS Search](#) | [TexasOnline](#) | [Compact with Texans](#) | [Report Fraud](#)



**Texas Parks and Wildlife Department**, 4200 Smith School Road, Austin, TX 78744

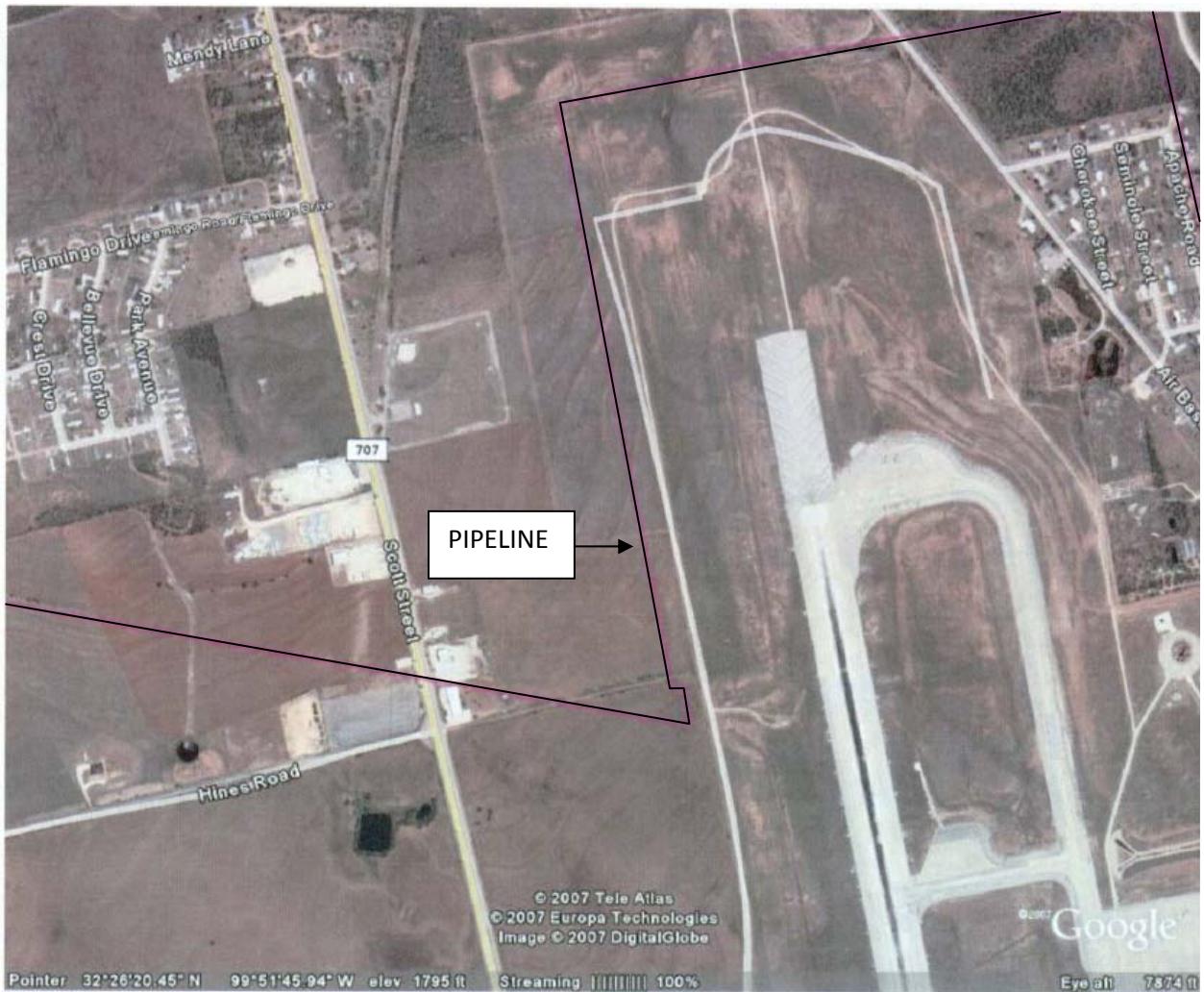
Toll Free: (800) 792-1112, Austin: (512) 389-4800

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Last modified: June 2, 2009, 3:55 pm

## **APPENDIX I**

## Configuration of ATMOS Pipeline

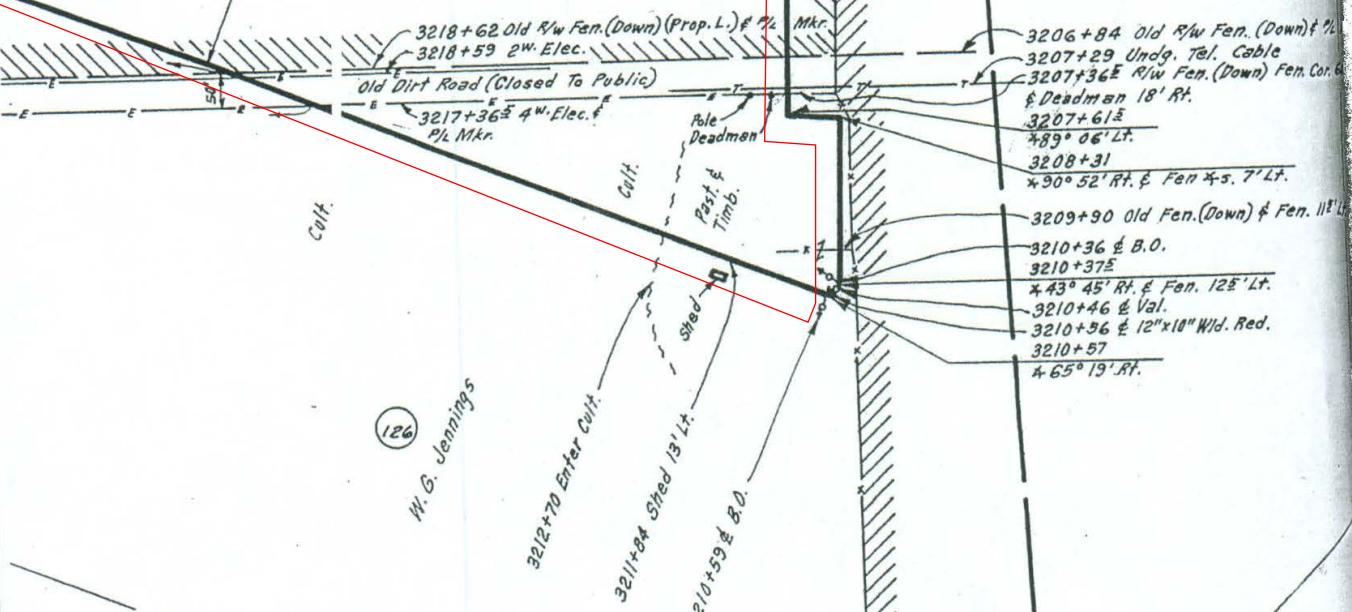


W. G. SWEATT SUR.  
SEC. 24

S.P.R.  
SE

TYE  
(Incorporated)

ABILENE  
(Incorporated)



TEXAS

## **APPENDIX J**

21450-2011-I-0268



DEPARTMENT OF THE AIR FORCE  
7TH CIVIL ENGINEER SQUADRON (ACC)  
710 3RD STREET  
DYESS AIR FORCE BASE TEXAS 79607-1670

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DUF	Taylor Co

MEMORANDUM FOR Mr. Adam Zerrenner  
Field Supervisor - Austin Ecological Services Field Office  
U.S. Fish and Wildlife Service  
10711 Burnet Road, Suite 200  
Austin, Texas 78758

DATE: July 8, 2011

FROM: 7 CES/CEAN  
710 Third Street  
Dyess AFB, Texas 79607

SUBJECT: Interagency and Intergovernmental Coordination for Environmental Planning  
Land Exchange Environmental Assessment (EA), Dyess Air Force Base (Dyess AFB), TX

1. Dyess AFB is preparing an EA for a proposed Land Exchange. The purpose of the Proposed Action is to address compliance with current airfield standards, which requires a runway lateral clearance zone of 1,000 feet. The northeast portion of Dyess AFB's airfield complies with the current 1,000-foot runway lateral clear zone; however, the northwest portion of the airfield is currently operating with a 750-foot runway lateral clear zone, which was established under previous standards.

32-434940, -99.860255

2. Dyess AFB is proposing to exchange two parcels of unutilized land, designated as Sites 1 and 2 (totaling 20.13 acres), for two privately-held parcels, designated as Sites 3 and 4 (totaling 14.2 acres). Site 1 is described as Communication Annex Transmitter Building 1001 and Site 2 is the Instrument Landing System (ILS) Middle Marker Annex 02. These properties would be exchanged for two parcels of fallow, agricultural fields (Sites 3 and 4), adjacent to the main runway. The Proposed Action includes converting the agricultural fields to a mowed, grassy area that will remain undeveloped in order to provide for the expanded runway lateral clear zone. In addition, the installation perimeter fence will be re-established to encompass the newly-acquired area. A location map of the Proposed Action is attached.

3. In addition, Dyess AFB is proposing to obtain easements (totaling 21.9 acres) on the northwest side of the airfield to prevent potential, future airfield obstructions.

4. As part of the environmental analysis, Dyess AFB, or its contractor, Aerostar Environmental Services, Inc., may contact you during data collection efforts. In advance, we thank you for your assistance in this activity. If you have any questions relative to this proposal, please don't hesitate to contact me at (325) 696-5664.

NO ACTION

Date: 16 AUG 2011

Consultation #: 21450-2011-I-0268

Approved by *Adam Zerrenner*  
Adam Zerrenner, Field Supervisor  
U.S. FISH & WILDLIFE SERVICE, AUSTIN, TEXAS

*David E. Laurence*  
DAVID E. LAURENCE, P.G.  
Chief of Environmental



Attachment:  
Location Map of Proposed Action

Global Power For America